

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. XLIV.

SATURDAY, FEBRUARY 2, 1884.

No. 5.

ORIGINAL LECTURES.

THE TREATMENT OF SYPHILIS.¹

A Clinical Lecture.

BY PROF. DUJARDIN-BEAUMETZ.

(Concluded from page 92.)

GENTLEMEN: Mercury is not the only metallic substance which has been prescribed for syphilis. Chrestien and Legrand have proposed preparations of gold, Serres of silver, Hoefer of platinum, and even of copper. All these preparations have been successively abandoned, but the treatment which has had the most repute is the vegetal treatment. The anti-mercurialists, struck by the ravages which mercury occasions, had essayed to substitute for it sudorifics, and from the sixteenth century, as a result of the influence of Delgado and Ulrich Von Hutten, guaiacum was considered as one of the most powerful anti-syphilitic medicines known. The success which was then obtained by the sudorific woods depended more on the severe regimen to which the patients were subjected than to any remedial qualities in the drugs.

Since then many attempts have been made to return to the vegetal treatment, and numerous have been the compounds of indigenous or foreign herbs in decoctions and alcoholic tinctures which have been prescribed, but these anti-venereal specifics are utterly unreliable. In Italy, Ubicini Galassi and others have experimented with the root of a member of the *Cucurbitaceæ*, viz., tayuya. I have not heard of any good results from the medicinal use of this plant, and Sigmund and Geher have shown it to be completely inert. Pilocarpine, that powerful sudorific, would naturally have been employed in syphilis, and if the sialagogue and sudorific action of a medicament can have any favorable influence in the treatment of venereal disease, this alkaloid, and jaborandi, which contains it, ought to be of efficacy. Notwithstanding the results of Lewin, which have not been confirmed by other experimenters, jaborandi does not seem to have any curative virtues in syphilis.

Of this vegetal treatment, nothing remains for consideration but the ptisans and syrups called depurative, almost all of which have sarsaparilla for their basis. If the vegetal treatment is absolutely without effect, it is not so with the treatment by the iodides, and particularly iodide of potassium. Since Wallace, of Dublin, in 1832, introduced iodide of potassium in the treatment of syphilis, this medicine has always been employed in this affection, and if there is still some dispute concerning the relative value of the mercurial treatment and the iodide treatment, everybody seems agreed in acknowledging the efficacy of the latter in syphilis. It has been

proposed to substitute bromide of potassium for the iodide, and I told you in a former lecture that it was these first attempts in this direction which brought the bromide before the profession. During the last few years, Gare, taking up anew the former tentatives of Richardson, Magendie, and Gambirini, has counselled the use of iodide of ammonium, but thus far iodide of potassium remains almost the sole haloid preparation used. It is given in solution, either in water or in syrup of orange-peel.

I have spoken to you many times in the course of these lectures of iodide of potassium, and shall not then return to the use of this medicine and its therapeutic and physiological effects. I shall only add, that in syphilis iodide of potassium may be given in pretty large doses, and we have seen practitioners like Puche administer from twenty to thirty grammes a day. I do not advise you to follow this example, and I believe that generally you should rest satisfied with a dose of from two to five grammes (from thirty to seventy-five grains), and that it is only exceptionally that you should administer as much as ten grammes a day, for in very large doses peculiar toxic phenomena are likely to ensue, described under the name of *iodism*.

Whenever you give iodide of potassium in massive doses, do not forget that you must prescribe at the same time the milk diet. Milk, in favoring the elimination by the urine of the iodine, and in preventing the irritant action of this salt on the digestive tube, antagonizes the baneful effects of this medication. The solution which I advise you to use is the following:

R.—Iodide of potassium, . . . 225 grs.
Water, 8½ fl. ozs.—M.

Each tablespoonful of this solution contains about one gramme (fifteen grains) of iodide of potassium.

You should commence with small doses, and when the iodic coryza appears, discontinue for several days the use of the medicine, to resume it in larger doses. The economy in fact habituates itself to the iodide, and persons who, at the commencement of treatment, suffer from irritations of the mucous membranes as a result of small doses, a little later may bear without inconvenience much larger doses of this medicine.

By the side of these iodine preparations, certain authorities have counselled arsenic and sulphur. The first of these has been associated with mercury in a compound which enjoys a certain popularity, and which is known under the name of Donovan's solution. Ricord has also combined iodide of potassium with arseniate of soda. As for sulphur, it has, according to Martineau, a considerable place in the treatment of syphilis. It is a sort of touchstone, which enables us (by the exanthems which it promotes) to determine if the specific symptoms have entirely disappeared,

Such is the therapeutic arsenal from which you may obtain arms to combat this disease. But I have accomplished only a part of my task in pointing out the

¹ Translated from advance sheets by E. P. Hurd, M.D., of Newburyport, Massachusetts.

armor. You must know how to use it. We shall now study in their order the treatment of the disease in general, and the treatment of the disease in particular, *i. e.*, in the patient.

We are chiefly indebted to Prof. Fournier for formulating in a masterly manner the general treatment of syphilis under the name of *method of successive treatments*. Fournier's system is based on stages of treatment and periods of repose, which latter, called by him *periods of disaccustoming*,¹ enable the economy to obtain release from habits imposed on it by the mercurial treatment, and derive the utmost possible benefit from the medication during its entire duration. So the first year he prescribes for two months the mercurial treatment, to be resumed after two months of repose; and this practice is continued with similar alternations for two years in such a manner that during the twenty-four months the patient will not have been taking mercury but ten months. At the end of the second year he administers, concurrently with mercury, iodide of potassium, and this latter medicine exclusively during the third and fourth years.

Martineau has somewhat modified the formula of Fournier, and, while following out his system of successive treatments, he gives sulphur preparations during the periods of repose. Moreover, these periods, which Fournier has traced with great care, must vary according to the patients, and no absolute rule can be laid down. I am therefore of the opinion of Mauriac, who advises that the treatment should be modified according to the march of the syphilitic manifestations.

Does this method of successive treatments rigorously followed ensure the cure of the patient? Unfortunately, no. If, in the great majority of cases, all specific manifestations are made to disappear by a well-ordered treatment, religiously followed, nevertheless one can never be sure that the patient is rid forever of syphilis, and you will often see arise in patients who have been treated with the greatest care, at periods remote from the primary lesion, symptoms clearly the consequence of the first infection. This question of the cure of syphilis will present itself before you, Gentlemen, especially when the marriage of syphilitic persons is talked of, and you will be consulted for information as to what moment a contaminated individual may marry without danger to his or her partner and the children which may be born of this union. Fournier has treated this question in an able manner, and has shown that generally you cannot authorize such marriage till after a treatment scrupulously followed for three or four years.

Now that we know the duration of the treatment, it remains for us to determine at what time we should commence it. The sooner the better, say Fournier and Mauriac. At the appearance of the first syphilitic manifestations, say Sigmund and Zeissl. I believe that the last advice is the safer and wiser.

The diagnosis of the primitive lesion often presents great difficulties, and unless one is an expert and an experienced one, it is quite easy to confound a hard chancre with ulcerations of quite different nature, and particularly with herpes. These difficulties are often such that we see experts, in doubt, practise inoculations

in order to determine the nature of the ulcerations which they have before their eyes. Therefore the practitioner ought to wait for the appearance of the roseola to confirm his diagnosis, and indicate the time for commencement of treatment. When the rash shows itself all his doubts are dissipated, and he may begin the administration of mercury. This delay of a few weeks is a very little thing in comparison with the duration of a treatment which lasts several years, and it has no detrimental influence on the evolution of the disease.

We have already examined two important points in the question of the mercurial treatment of syphilis: the duration of the treatment, and the moment when it should be commenced. It may now be asked if all cases of this disease ought to be treated with mercury and the iodides? My reply is, Certainly; every syphilitic individual ought to undergo the specific treatment. I am well aware that in his remarkable work on the *Natural History of Syphilis*, Diday has shown us that a great many syphilitic patients get well without treatment, and I know also that syphilis, like any other disease, has its mild forms and its severe forms; and, according to the soil in which it is implanted, it may take on a more or less rapid course. But what I am also convinced of is, that we often see very grave tertiary symptoms supervene in persons who have had till then manifestations of syphilis so benign that this disease has passed absolutely unperceived by them. Therefore it will not do to depend altogether on the more or less tardy appearance of the secondary symptoms and their benignity, and abandon the specific medication, and in directing this treatment one ought to think, not so much of the manifestations he has before his eyes, as of those which are likely to appear in the future.

Finally, to terminate these general considerations on the treatment of syphilis, a question remains to be answered: Does the specific treatment cure all the manifestations of venereal disease? Unhappily, no; there is a malignant syphilis with galloping march, of ulcerous form, which resists the best directed specific treatment. Nevertheless these cases are exceptional to-day; thanks to the hypodermic method we can master the greater number of specific accidents. It is well understood that this treatment will not repair the loss inflicted on the tissues by the presence of certain syphilitic neoplasms, like gummata, and when these have invaded a part of the cerebro-spinal medulla, the lungs, the liver, the pharynx, etc., the specific treatment will be powerless to restore the parts thus destroyed.

These points being duly established, we pass to the study of the syphilitic patient, and we will follow, step by step in their progress, the several manifestations of syphilis. Let us commence by the chancre.

The nature of the chancre being once determined, can we, by cauterization or by excision, prevent the system from undergoing the syphilitic infection and its consequences? Such is the first question we have to solve. From data furnished by the test experiments of Sigmund, Chadzynski Auspitz, and Mauriac, we are warranted in affirming that the most energetic cauterization and even excision made during the first days of the chancre, and before the propagation of this induration to the neighboring glands, does not prevent the development of the secondary symptoms. I am well aware, according to the statistics to which I have re-

¹ Stades de désaccoutumance. Fournier, Leçons cliniques sur la Syphilis. 2d ed. Paris, 1881.

ferred, that successes have been claimed by both cauterization and by excision, but as the failures have always exceeded the successes, it may well be asked if, in the latter cases, an error of diagnosis was not committed? I believe, then, that this question of the excision of the chancre or its thorough cauterization demands new investigation before such treatment can be regarded as efficacious.

The treatment of the syphilitic chancre then consists in local means which have for their object to hasten the cicatrization of the sore; a curative process which, by the way, goes on normally with considerable rapidity. Pomades of calomel and cold cream (one part to four); lotions of chloral (half per cent.); light touches with lunar caustic, and, above all, special care about cleanliness, suffice generally to hasten the cure of the primitive lesion. Whenever the sore becomes deep and anfractuous, and presents a sanious and malignant aspect, you can employ tincture of iodine, or, what is better, iodoform. This latter is veritably a marvellous medication in the local treatment of syphilis, and since Féréol showed us, in 1868, the happy topical effects of iodoform in chancre, it has daily been put in usage and always with success.

You are well aware that of late years iodoform applications have had a great popularity, and that they occupy to-day the first rank among antiseptic dressings. I know of but one objection to this medicinal agent—its disagreeable odor. Attempts have been made to mask this odor, but none of them have been very successful. It has been employed in pomades, powder, and, better still, in ethereal solution. Berkeley Hill has proposed a very concentrated solution (one part of iodoform to eight of ether). I prefer a very dilute (five per cent.) solution, and I apply it to the genitals by means of a spray atomizer. You can thus cover the most anfractuous parts of the sore with a thin coating of iodoform, and you have often seen in my service the good results which we obtain from these ethereal iodoform sprays in the treatment of venereal sores in the female.

It has been proposed to substitute for iodoform, bisulphide of carbon; but the smell of this compound is quite as disagreeable as that of iodoform, and it is not proved to have any therapeutic advantage over the latter.

When once the chancre is healed, and the roseola makes its appearance, you begin the mercurial treatment, and I have already told you that, in my opinion, the best preparation is the liquor of Van Swieten; and you thus follow the various stages of the disease.

You all know that syphilis evolves by stages presenting characteristic symptoms, and to which has been given the name of secondary period, transition period, and tertiary period. In the secondary period we depend on mercury; in the period of transition we give mercury and iodide of potassium together. A convenient form of administration is the syrup of Gibert, which contains biniodide of mercury with iodide of potassium.

Lastly, in the tertiary period we use iodide of potassium almost exclusively.

There has been much discussion as to the precise time when the iodide should be given. In a recent work, Gougenheim has shown that even in the secondary stages of syphilis iodide of potassium gives good

results. Martineau, in opposition to Zeissl, who would give mercury after the iodide, recommends always to precede the iodide treatment by the mercurial, and I believe, judging from my own experience, that his views are sound.

There are certain syphilitic accidents of a stubborn kind encountered in different periods of syphilis, and which resist to a certain extent the mercurial treatment. I refer particularly to the mucous patches that have for their seat the vulva, the pharynx, and even the labial commissure. These patches perpetuate themselves under the least local irritation. As for those of the vulva, you will need to enjoin the utmost care as to cleanliness, and local applications of iodoform and ether, or iodoform ointment, will be required; as for those in the mouth and throat, you must forbid the patient to smoke, and you will have to touch the sores with tincture of iodine or Van Swieten's solution.

The tertiary complications are often very serious, especially when they affect the nervous centres, and urgent measures will be required, such as the administration in large doses of mercury and iodide of potassium. Here we witness the triumph of hypodermic injections of peptonate of mercury, or frictions of mercurial ointment, associated with iodide of potassium; and I know of no more convincing evidence of the efficacy of this kind of treatment than the cures which are obtained in so short a time from cerebral complications so grave that they would have caused the death of the patient in a few days if help had not arrived. Paralytic and meningeal symptoms all disappear, as if by enchantment.

When lecturing on the treatment of myelitis, I told you of the difference which exists between the ataxia of syphilitic origin and other affections of the spinal cord due to syphilis; the first being well-nigh incurable, despite the most energetic specific treatment, the second being amenable to such treatment.

Mineral waters have an important place in the treatment of syphilis, and especially the sulphur waters. Numerous discussions have arisen concerning the action of these waters. Some maintain that certain of these waters have anti-syphilitic properties; others that they only make known the fact whether the patient is cured or not of his syphilis; others claim that these waters have only a tonic and stimulant effect. The latter view counts the most adherents, and is undoubtedly the correct view. The favorite resorts for syphilitic patients are the spas of Aulas, Baresges, Luchon, Cauterets, Amelie les-Bains; in a word, the various sulphur springs which abound in the Pyrenees.

I have finished the general treatment of syphilis, but I desire to say a few words about other venereal diseases, viz., the soft chancre and gonorrhœa. Soft chancre requires the same treatment as the infecting chancre. At the same time, under some circumstances, the soft chancre becomes phagedænic, and then it is necessary to employ a very energetic treatment to arrest the spread of the ulceration. Therefore, after failure with perchloride of iron, iodoform, and tincture of iodine, you may have to resort to cauterizations with the hot iron in order to modify the surface of the sore. To all these measures we must add partial baths of 40° C., which, according to Aubert, constitute the most powerful curative agent in simple chancre and its complications. You well

know that the mercurial treatment is contraindicated in phagedæna, and that it is necessary to employ tonics under all their forms.

The treatment of gonorrhœa comprises the treatment of blennorrhagic urethritis, and that of blennorrhagic vaginitis. In the former, several forms are to be distinguished. Either it is a case of acute blennorrhagia, or the disease has become subacute, or has passed on to the chronic stage. In acute blennorrhagia, the most rapidly curative medicine is copaiba. You know that this balsam, which is in reality one of the turpentine, is composed of an essential oil, which is eliminated by the lungs, and a resinous copahivic acid, which is eliminated by the urinary passages, and it is this elimination which is the curative agent in gonorrhœa. But in order to obtain from the copaiba treatment all the benefits which you expect, you must follow certain rules here laid down. Never give copaiba in the first periods of gonorrhœa, when the inflammation is invading the entire urethral mucous membrane, for at this stage it is worse than useless. Rather wait eight, ten, or even twelve days, till this general inflammation has subsided, before giving copaiba. During this period you can give the diuretic infusions, or alkaline solutions, which have a sedative action. Then you can begin with copaiba, which may be given in capsules, dragées, or in some of the numerous anti-blennorrhagic compounds, like the famous potion of Choppart, which contains copaiba with syrup of tolu and essence of peppermint. But in whatever form it may be administered, it is necessary to give it in frequently repeated doses, so that the urine may be always charged with copahivic acid at the time of emission; so when you make use of the capsules, you should order the patient to take six of them a day—one every two hours. You should increase them by one capsule a day till he takes twelve during the twenty-four hours—one capsule every hour during the daytime. This dose should be continued for two days; then you can diminish them by one capsule a day, till the patient comes to take only one in twenty-four hours, at which time the cure ought to be complete.

In subacute urethral blennorrhagia, you can accompany treatment by copaiba with the use of alterative or astringent injections. I assign due weight, Gentlemen, to all the discussions which have arisen relative to the medicinal action of urethral injections, some authorities considering them as beneficial, others as dangerous. I believe that they are both, according to the time when they are employed—dangerous in the inflammatory periods, beneficial in the subacute and chronic stages. You are aware of the multiplicity of these anti-blennorrhagic injections, which may be divided into three groups: first, those that have a modifying action, the type of which are injections containing nitrate of silver; second, astringent injections, such as those of tannin and sulphate of zinc; and, lastly, the parasiticide injections, which are to-day very much in vogue, and although the microbe of blennorrhagia has not been found, it is not the less true that these injections, and in particular those of permanganate of potash, are employed with success in urethritis. I shall only mention the one which I use oftentimes myself, of which the formula is as follows:

R.—Tannin, 3 parts.
Glycerine, 100 " —M.

In the treatment by urethral injections, it is well to insist upon the directions laid down by Bourgeois. The patient should first be required to urinate; the injection should be retained for several minutes in the urethral canal, and it is necessary that the syringe be in good working order. In my practice, I prefer the syringe of Langlebert. As for chronic gonorrhœa, so-called gleet, it often presents an invincible resistance to every kind of treatment, and nothing is more obstinate than the *goutte militaire*. You must bear in mind that, as pertaining to this incurability, the patient, by his imprudences, plays a more important part even than the disease itself. It is also a noteworthy fact that deep-seated ulcerations or even strictures often keep up this urethral running, and in these cases the use of the sound or of medicated bougies may have a remedial effect.

After the tonic regimen, ferruginous preparations, bromide of potassium, sea-baths, or sulphur waters, will give you more certain curative results than the urethral injections and balsamic preparations, which are here absolutely useless.

I have not spoken to you of the abortive treatment of this disease, and for this reason—I consider it as useless and dangerous. I have been for many years, and am still, physician to a certain association of commercial employés, and I have observed very many cases of gonorrhœa among them, and I have never once witnessed a cure by the injection of strong solutions of nitrate of silver during the first few days of the attack. On the contrary, I have always observed that whenever this treatment was followed, there was an aggravation of the malady. I discard, then, altogether these abortive measures.

The treatment of blennorrhagic vaginitis ought to fulfil the two following conditions: it should modify the surface of the mucous membrane and prevent agglutination of the opposing surfaces. Here vaginal tampons and suppositories are of great utility. Besides the *sachets* and suppositories so generally employed, ointments introduced by special *pomade-depositors*, devised by Terrillon and Auvard, are much in fashion.¹

Tripiier has recommended the employ of clay mixed with glycerine. I myself am in the habit of using a conical wad of finely carded cotton wound rather tightly, having the form of a speculum, which is introduced into the vagina, after being smeared with a suitable pomade.

Apropos of these ointments, there are numerous formulæ, all having for basis substances more or less astringent and antiseptic. Of all these preparations that which seems to me the best, is the mixture proposed by Vidal of Gurgun balsam and lime-water, in the proportion of one part of the former to two of the latter.²

¹ The pomade of Terrillon and Auvard is made as follows:

R.—Tannin, 1 part.
Vaseline,
Starch, 3 parts.—M.

These substances are incorporated into a paste, which is introduced into the vagina by the *pomade-depositor*. This treatment has proved very efficacious.

² Gurgun balsam (gurgun oil or wood oil) was first employed, in 1838, in the treatment of gonorrhœa. Vidal employs the following formula:

R.—Gurgun oil, 1 part
Gum arabic,
Infus. anisi, 10 parts.—M.

Sig.—To be taken in two doses.

When this quantity of lime-water is exceeded, the pomade becomes too thick, and its application on the cone of wadding is rendered more difficult. Using then the preparation above formulated, I smear my tampon with it, and leave it in place in the vagina for twenty-four hours, and I renew this dressing every morning; when removed, the patient should wash out the vagina with a cleansing injection.

Vaginal injections, like urethral injections, require to be taken with certain precautions. The syringe with rubber ball and tubing, called in America the Davidson syringe, is preferable to the hard rubber or glass tubes in common use; or, what is better still in many cases, the fountain syringe with its appurtenances. The terminal canula should give issue to the fluid by lateral orifices.

The formulæ for vaginal injections are too numerous to be mentioned here, and you will find in your special treatises a sufficient number from which to select for any occasion. I shall only refer to chloral injections, which I was the first to recommend. These are now very much in use, and have often a very happy local effect. My usual way of ordering these injections is as follows:

R.—Hydrate of chloral, 1 part.
Water, 10 " —M.

Signa.—Add a tablespoonful of this solution to a quart of cold water for an injection.

Next to these chloral injections, and almost on the same level, I place injections with resorcine. In my study with Callias, of this medicament, I have insisted on the energetic modifying action of this substance on bad ulcerations of the genital organs. Leblond and Fissiaux have just repeated these therapeutical experiments, and with equally good results. I know of but one inconvenience attending these applications of resorcine, it is the high price of the medicament. The injection is made by adding Zijss of resorcine to a quart of water. Next in importance come the astringent injections, containing tannin, rhatany, oak bark, etc.

I have much more to say respecting the treatment of blennorrhagia, but it is time to bring this long lecture to a close; the indications which I have given will probably meet the greater part of the cases which will occur in your practice.

ORIGINAL ARTICLES.

SUBCUTANEOUS DIVISION OF THE CRUCIAL LIGAMENTS FOR RELIEF OF KNEE ANKYLOSIS.¹

BY L. McLANE TIFFANY, M.D.,
PROFESSOR OF SURGERY IN THE UNIVERSITY OF MARYLAND.

In common with, I expect, many other medical practitioners, I have experienced not infrequently great difficulty in overcoming the deformity and

Mauriac recommends as a useful potion in gonorrhœa, the following mixture:

R.—Gurgun oil, 16 parts.
Gum arabic, 10 "
Syrup. acaciæ, 30 "
Peppermint water, 50 " —M.

Sig.—To be taken in three doses.

(Leon Duval, On Gurgun Oil, Thèse de Paris, 1877.)

¹ Read before the Baltimore Acad. of Medicine, Jan. 15, 1884.

ankylosis remaining after knee-joint inflammation has subsided, and any operative measure which will, in proper cases, lessen this difficulty is worthy of mention. The procedure named in the title of this paper, division of the crucial ligaments, has been made use of by me with great and immediate benefit to my patient; benefit which, in view of the time which has elapsed since the operation, may be confidently expected to be permanent.

It is not unusual, after that variety of knee-joint inflammation which is denominated white swelling has subsided, to find the articulation left in a more or less ankylosed condition, and the head of the tibia resting more behind the femoral condyles than normal, while there is present at the same time rotation of the limb below the knee, so that the toes point outwards too strongly; the inner condyle of the femur also is overprominent; from which combination of circumstances it results that the function of the limb as a weight-bearing organ of progression is seriously impaired. To restore natural shape and usefulness, division of tendons, of extra-articular bands of fascia, of ligaments; forcible extension under anæsthesia of intra-articular adhesions and bands; shampooing; passive motion, etc., are called into requisition, and with excellent effect.

It is sometimes found, however, that the above means fail to bring about the wished for result, and that, notwithstanding our efforts, the joint remains obstinately misshapen, and more or less stiff.

The deformity of the knee under consideration is far more likely to be met with in children than in adults, and after tendons with extra-articular bands have been severed, the question presents itself as to how much power it is proper to exert in order to rupture forcibly any intra-articular adhesions—the doubtful point being whether the adhesions, the epiphyseal joining, or the bone itself will give way soonest. It is customary to break up adhesions and attempt to restore motion to a knee-joint, not only after inflammation has subsided, but a long time after it has subsided, when, therefore, of necessity the articular surfaces of both tibia and femur have become pretty well settled in their vicious relations to each other. This is a condition of affairs to which neighboring soft parts do not fail to accommodate themselves, for it is a well-known fact that ligaments entering into the construction of a joint will, if the bones are placed in an abnormal position, so adapt themselves to the new attitude as finally to hold the bones in their changed relations, as they, the ligaments, were formerly expected to do in the normal.

There is no good cause why the above line of thought should not apply equally well to both intra- and extra-articular ligaments, and fitting the train of reasoning to the knee, it occurred to me some time since that the crucial ligaments had a good deal to do with the characteristic position which a knee having assumed, retains so sturdily after a severe attack of inflammation, and, as both flexion and extension are limited, that division of these two ligaments would not only permit more motion, but also would enable the tibia to glide forward to its proper position in relation with the femur.

In November last a case of knee ankylosis fell into my hands, which I was unwilling to excise, owing to the patient's youth, and not being able to straighten without undue violence, I subjected to division of the crucial ligaments.

In deciding whether a distorted knee should be subjected to the above operation, it is necessary, first of all, that inflammation of and about the joint should have long since passed away, otherwise the necessary manipulation may give rise to recurrence of the original trouble, disastrous suppuration, or what not; furthermore, the patient should be in excellent health with the functions of life well performed. The hamstring muscles, lateral ligaments, and any opposing bands of fascia are then to be divided subcutaneously in the usual way. When the tenotomy punctures have healed, extension under anæsthesia is made, and the operator will be able to recognize that the failure of the joint to still further straighten is due to intra-articular bands.

The amount of power which can be exerted to produce extension must depend upon the surgical acumen of the operator, and a rule in pounds can not be laid down; suffice it to say that a point is reached beyond which the exercise of force will be followed by results prejudicial to the patient's welfare, and this point will be reached earlier in those patients with whom the epiphyseal cartilage persists, than in those whose bones are completely ossified, for of course an epiphysis might be wrenched off by too strong manipulation.

Further forcible extension being inexpedient and the deformity continuing, division of the crucial ligaments is indicated and may be done as follows: The patient lies on the back, the affected limb is held steadily in extension so as to render tense the anterior crucial ligament; the tenotome is entered to the inner side of the ligamentum patellæ, a quarter of an inch above the articular surface of the tibia, and carried backwards and outwards so as to pass between the tibial spine and the external condyle of the femur below the ligament (crucial). The flat of the blade is towards the articular surface of the tibia, the back towards the ligamentum patellæ, the edge towards the spine, after entering the joint. The cutting edge of the knife is now to be carried across the joint from side to side, the edge being directed so as to pass over the spine, and divides the anterior crucial ligament just above its attachment to the tibia; the posterior crucial will probably also be divided, but as it lies further from the skin puncture it is well to reverse the edge of the tenotome, without withdrawal, pass it more deeply into the joint, and carry it from the internal to the external condyle, retracing the path already travelled.

Before entering the knife, the skin should be drawn upwards that the wound may be valvular and air less likely to gain admission to the joint. The tenotomy wound is to be treated as usual. If division of the ligaments has been accomplished, the limb can at once be well extended; the tibia is felt to glide forward upon the condyles to occupy almost if not quite the usual situation, the posterior projection disappears, and the eversion of the foot is

lessened. A proper retentive apparatus is to be applied—I use plaster of Paris—and the knee held in its new position until all likelihood of inflammation is past, when passive motion is to be commenced. Inasmuch as the affected limb, from long-continued non-use, is usually not well developed, friction, electricity, etc., can be used with advantage.

Certain practical points in the operation described above present themselves and claim attention: one is the depth to which the knife must be entered before attempting to cut the ligaments; this will of course depend upon the size of the knee demanding treatment; the case related hereafter required that the tenotome be entered one inch and three-quarters. Lately, when practising the operation upon an adult male subject in the dissecting-room, I found that the cutting edge of the knife had to be carried two inches and a half below the skin surface before the crucial ligaments could be severed; here, of course, the joint was healthy. It is wise, I think, that the tenotome should have a blade about three inches long, of which not less than one inch should have a cutting edge, the better to divide both ligaments at one time; also a long and slender point is not entirely free from chance of fracture in an ankylosed knee-joint, and it is well to have the end rounded or chisel-shaped with the corners cut off, furnished, however, with a good terminal edge.

CASE.—A. W., female, aged 11 years, came under my care November 12th. She desired to have her left leg rendered more serviceable. At the age of two years she had an inflammation of the left knee, after which the joint remained flexed nearly at a right angle, so that walking on the limb was not possible. She has always used a crutch. Examination shows the leg flexed on the thigh as stated, the inner condyle of the femur very prominent, the foot rotated outwards strongly, and the head of the tibia displaced backwards to a marked degree. The thigh showed a deeply depressed cicatrice presumptively connected with the former knee disease. Both thigh and leg were less developed than upon the right side, owing, perhaps to disuse, perhaps to inflammatory changes in the epiphyseal cartilages. I divided tendons, fascia, etc., and put a splint on the limb until the tenotomy punctures had healed. Extension to a certain point was then possible, but strong resistance was, beyond this, experienced. No tense structures could be felt, and so it was inferred that the crucial ligaments required cutting. This operation was then at once done, after which the limb could be straightened and the tibia-head advanced to its proper position upon the femoral condyles. The puncture was covered with a piece of absorbent cotton, the whole limb enveloped in cotton wadding and encased in a plaster splint. No pain or constitutional disturbance ensued; examination at the end of one week showed the puncture healed. At the end of three weeks, passive motion was commenced, and the patient is now gaining both strength and motion. The tibia has not returned to its former position behind the femur, the sole of the foot rests on the floor, and the limb bears weight.

THE SANITARY CONTROL OF THE FOOD SUPPLY.¹

BY WILLIAM K. NEWTON, M.D.,
HEALTH OFFICER OF PATERSON, N. J.

THERE is no one subject more intimately connected with our every-day life, and about which so much has been written and published the past few years, as the condition of our food supply. The columns of medical, sanitary, and chemical journals, and the reports of State and local boards of health, have been crowded with essays on food adulteration and plans for checking it; and the popular papers have teemed with the horrors of the subject, each trying to vie with the other in furnishing the latest meal of adulterated articles, till, if we believe the sensational stories of these alarmists, we wonder why there are any people left to tell the tale. The amount of evidence bearing on food adulteration at our command to-day is enormous.

First, let us see what is the prevalence and what the proportion of adulterated food, and then note the effect of prosecution and investigation thereon.

As to Continental Europe we can say but little, for the records are so scattered, and the laws so multifarious, that we have but a trifle to offer. In France, to judge from the published reports, chemists note articles as good, bad, passable, not injurious, and injurious. Thus, in March, 1883, out of 1118 articles examined at the Paris laboratory, 271 were returned as good, 231 as passable, 616 as bad, 545 of which were "not injurious," and 71 "injurious." It is difficult to tell just what is meant by these terms, and as we are not informed which are pure and which adulterated, no opinion can be formed. Wines form by far the largest number of articles examined, and, from the report, we judge that the Parisians get very little pure wine. Of 257 samples of milk, 26 are returned as good, 116 as passable, and 115 as bad, but not injurious.

GREAT BRITAIN.

Year.	Number analyzed.	Per cent. adulterated.
1875-6 . . .	15,939	18.10.
1877 . . .	11,943	17.70.
1878 . . .	15,107	16.58.
1879 . . .	17,574	17.25.
1880 . . .	17,919	17.47.
1881 . . .	17,303	16.56.
1882 . . .	14,900	16.50.

These totals do not represent foods exclusively, for drugs, wines, spirits, and beer are included; nor do they indicate the state of the food for the whole of Great Britain, for, as before stated, in many parts of the country no work is done under the Act.

It will be seen by glancing at the figures that five years' work, from 1877 to 1882, has only reduced the amount of adulteration 1.2 per cent. When it is remembered that a vigorous prosecution has been kept up, we are compelled to acknowledge that the results are not very encouraging.

Selecting a few articles from the list for purposes

of comparison, we find that of the samples of milk analyzed the per cent. adulterated varied from 26 in 1877, to 20.35 in 1882. Butter, including oleomargarine sold for butter, 12 to 15 per cent.; groceries, 13 to 10 per cent.; bread and flour, 6.34 to 4.32 per cent. Canada shows by far the best results obtained by any country, and the reduction in the amount of adulteration has been made by but little prosecution; the only form of punishment indulged in is the publication of the names of the dealers in impure articles. In 1876, when the work was begun, 51.66 per cent. of the articles examined were adulterated; in 1882 this figure is reduced to 25.66, showing an improvement of a little over 25 per cent.

As there has been little or no prosecution in the United States under the food laws, but little can be recorded as having been done in the way of a reduction of the percentage of adulteration. In New York and other cities, and in New Jersey, the sale of impure milk has been markedly reduced, but there is still much work to do. If we look over the reports of the analysts of New York, New Jersey, Massachusetts, Michigan and other States, we obtain a fair idea of the prevalence of sophistication in this country. We find that the staple articles, such as are used in the average household, suffer adulteration about as follows: Spices and condiments, 66 per cent.; ground coffee, 45 per cent.; tea, 43 per cent.; sugar, the higher grades rarely, the lower grades 20 per cent.; syrup, 50 per cent.; milk, when not inspected, 50 per cent.; flour, none; bread, about 2 per cent.; cream of tartar and baking powders, 44 per cent.; butter, 40 per cent. (other fats substituted); vinegar, seldom adulterated, but rarely cider vinegar; olive oil, 60 per cent.

Spices and condiments are adulterated with exhausted spices, ground cereals, flour, buckwheat hulls; coffee with chicory, rye, and other cereals; tea with exhausted leaves, leaves of other plants, damaged teas, coated to improve looks; sugar with grape sugar; syrup with grape sugar, in many cases all glucose; milk with water, alkaline salts to neutralize acidity, preservatives, and is often skimmed; bread, alum added to increase whiteness, rarely used in this country; cream of tartar and baking powders, gypsum, starches, and "fillers," to increase bulk; butter, other fats substituted for it and adulterated with foreign fats; vinegar, rarely adulterated, but often not fruit vinegar; olive oil, peanut and cotton-seed oil.

It will be noted, after glancing over this list, that the simple articles in every-day use are never adulterated with injurious substances, and the evidence thus far offered indorses the statement made in the first part of this paper, that adulteration is a sin against the pocket and extremely rarely against health.

A group of substances which may be classed together and which, strictly speaking, are not adulterations, but are often used for the purpose of sophistication, will now be considered.

Oleomargarine.—It is difficult to say whether this may be put in the category of articles to be placed under the watch-care of sanitary officials. Some

¹ Condensed from a paper read before the American Public Health Association at Detroit, November 14, 1883.

have held that there is danger of animal parasites or diseases being introduced into the economy by the use of this article, but the best authorities deny this statement. Personally, I am of the opinion that it should be classed with the commercial frauds, but that its manufacture should be watched carefully by health officers. You are so familiar with the process of manufacture that it does not seem necessary for me to go into detail. Suffice it to say, that the aim of the maker is to produce a sweet and merchantable article, as any rancidity would interfere with its sale. This fact insures the public against any putrid or ill-smelling fat being used. The quantity of this material sold and used as food in the United States is enormous. We may form an idea of the extent of the business when we know that three factories in New York State turn out not less than 4500 tons a year, and there are some five or six more factories in the country. I venture to state that a very small portion of this is sold to the consumer for what it really is.

We must recognize the necessity for some legal control over this trade, and dealers should be compelled to sell the article on its merits, and not fraudulently. The enforcement of such a law does not belong to health boards, however.

"Lard Cheese" and "Lardine."—An ingenious New Yorker has discovered that he can take milk robbed of its cream, and by the introduction of a foreign fat produce a cheese equal to an honest cream cheese. Lard and oleomargarine oil have been used in this process, and the resulting material is known as "lard cheese."

"Lardine" is an artificial butter made in nearly the same way. Now, if these articles were sold to the public on their true merits, no one would complain; but such is rarely the case, and if persons are thus defrauded, it may be argued that legal protection to the innocent purchaser is demanded.

Glucose (Grape Sugar).—It is estimated that ten pounds of glucose per capita is made and sold each year in the United States; and we naturally ask, What becomes of it? No one ever heard of a person asking for the substance at a grocery store. Yet it is sold and consumed somewhere. We can account for a large percentage of the substance in the syrups, strained honey, confections, and in the lower grades of sugar.

Attempts have been made to check or prohibit the sale of this article, which, as Dr. Squibb has it, "marks the progression of the age." The legislators of New Jersey passed a law in 1881 requiring that the manufacturers of sugar and syrup who shall mix therewith any glucose or grape sugar, must mark the package with the word "adulterated," under a penalty of \$500. This law came before Governor Ludlow for his signature, which he refused to affix. His veto message will bear quoting here, for it answers the question as to whether the substance shall be considered as injurious or not. He says: "The manufacture of glucose or corn sugar is an enterprise yet in its infancy; it will, if successful, result in the utilization of the corn crop of the country, the increase of the sugar supply, and the consequent employment of a large amount of capital and labor.

Scientists of acknowledged ability and integrity have declared it to be a healthful article of food, and there is no reason why the result of its mixture with cane sugar should be marked 'adulterated,' as if it were a debasement or pollution." The Legislature was satisfied with the Governor's explanation, and did not enact the law.

Frequent statements have been made that the sulphuric acid used in its manufacture has been found in large and poisonous quantities in the glucose syrups. This is either a perversion of facts or an exaggeration. It is true that sulphuric acid is employed in the conversion of starch into grape sugar, but the acid is afterwards neutralized by means of milk of lime. If any acid exists in the syrup, it is either in combination with the lime or free and in very small quantities, a condition strenuously avoided by the manufacturer.

It may be said without fear of contradiction that glucose may be considered a harmless article of food.

As to the use of this article as an adulterant, I hold that it does not come under the jurisdiction of health officers.

Canned Foods.—There is sufficient evidence to warrant us in asserting that fruits, vegetables, and meats preserved in tin need our attention. Many cases of acute poisoning of greater or less severity have been reported by competent observers. It has been proved that some fruits and vegetables act upon the tin or lead, and enough of these metals is dissolved to cause serious illness. This is especially true of the very acid fruits, such as apples, cherries, and vegetables like tomatoes.

One case has come under my notice where two persons were seized with an attack of vomiting, purging, and cramps after the ingestion of apples preserved in tin. I was fortunate enough to obtain the can and the remainder of the fruit. The interior of the can presented a crystalline appearance, such as is described by Wood and others who have investigated the subject. The fruit was acid in reaction, and analysis revealed tin in considerable quantities.

It has been suggested that only old and imperfectly prepared fruits and vegetables cause trouble, and that to insure the freshness of the article the year of canning should be stamped on the package. This subject needs thorough investigation.

As to illness being caused by corned beef and other meats in cans, I can say that I have seen two cases, but the trouble seemed to be due to imperfect preservation, as the meat in both cases was partially rotten. Both cans were what is known in the trade as "swelled-head," that is, the ends of the can bulged out by air or gases in the can; hence these cases cannot be cited as being caused by canned meats by themselves.

Preservatives.—I wish to call attention to the use of preservatives, as the custom seems to be increasing, and the subject should be thoroughly studied before a competent opinion can be formed as to the advisability of their employment. Those which I have examined have consisted of salicylic acid, either alone or combined with soda; alkaline carbonates; potassium nitrate; and borax or boric

acid. These are extensively advertised in glowing language and with the usual accompanying certificates from chemists or physicians, and meet with ready sale. Many fanciful names are given to the compounds, and each is claimed to be "positively harmless."

My own opinion is that their use should be discountenanced by sanitarians, for the mere fact that a certain chemical combination will check fermentation or putrefaction outside of the body, leads us to believe that digestion will be impaired or impeded. This I have sought to prove in an imperfect way by treating milk with a preservative and then attempting artificial digestion. Digestion was proved to be interfered with, or checked altogether.

Thus far we have been discussing certain laws and duties relating to the food supply with which health boards may or may not properly concern themselves. Your attention is now called to a group of foods, and the trades connected therewith, which need the constant surveillance of sanitary officers. I refer to bread, milk, and meat, and the trades of baker, milk-seller, and butcher, each one of which should receive the closest attention of health officers. The importance of this branch of our subject is so evident that I shall go somewhat into detail in pointing out the line of investigation necessary.

Bread.—The amount of adulterated bread sold in the United States is very small, certainly not one per cent. of the quantity used. Alum is sometimes used to make bread appear white, but it is not a common practice. It may, by prolonged use, cause indigestion, and of course its use should be checked. But the health officers' duties do not end with the mere examination of bread for alum; he should carry on his inspection further, and into the bake-shop, notice the condition and surroundings of the place, and insist that there should be cleanliness in every branch of the business.

Bake-shops are usually located in cellars and are very often damp, dirty, and foul-smelling, and if a person with a sensitive stomach should visit many of them, I am of the opinion that the demand for home-made bread would be increased.

The very occupation of baker is apt to cause certain diseases of the skin of the hands, and although no illness may be caused by it, it is not pleasant to think of our bread containing the scales or scabs from eczema.

To give a leaf from the history of a few visits to bake-shops may interest you and impress upon your minds the importance of the sanitary control of such places.

Most of the places visited were damp, dark cellars, where artificial light is constantly used. In one place we found the cat and dog asleep in the kneading-trough, fowls running around and perching on the various utensils, and a general air of filth and lack of thrift. In one shop the kneading-trough was connected with the sewer by means of an untrapped waste-pipe; in another the soil-pipe had burst and the floor was flooded with liquid filth. The baker said that "that always happened after a rain-storm." I have seen a baker mixing his bread with hand and arm covered with the eruption of

eczema. He said that "the doctor told him the dough was good for the disease." But we would say that the quality of the bread was not improved thereby.

The custom of using bake-shops for sleeping-rooms is very common and must be discountenanced.

I would insist, then, on the necessity of frequent inspections of bake-houses, in order that their cleanliness should be insured.

Milk.—When we consider that milk is universally used, and that it constitutes almost exclusively the diet of children at that time of life when they are least able to resist any interference with the purity of their food, we are forced to the conclusion that strict measures should be adopted by every health authority to insure that condition of the supply necessary for good health. It is pleasant and encouraging to know that this is acknowledged by most sanitary officers, and that more or less efficient work is done by a great number of health boards to check the sale of impure milk. But the mere inspection of milk for the purpose of detecting adulteration, although most commendable, does not go far enough and is not in itself sufficient. The watchfulness of health officers should go much further and should extend to the dairies from which the supply may come; this I shall insist on, and shall state cogent reasons for demanding it.

We are in a position to state that the adulteration of milk is confined almost exclusively to the addition of water, preservatives and alkalies, and to the abstraction of cream. These adulterants are not in themselves injurious to health, but when we know that the nutrition of an infant is seriously interfered with by the impoverishment of the milk given it, we see wherein harm may be done.

Beside checking the sale of adulterated and impoverished milk, the inspector should be on the lookout for milk from dangerous sources, some of which I shall now indicate.

Milk produced by improper feeding: Distillery waste, and sometimes beer grains, produce a quality of milk of low nutritive powers and dangerous to infants.

Colostrum: The milk from cows soon after calving should not be sold. It has often produced intestinal troubles in children.

Cattle improperly cared for: Cattle improperly housed and cared for, especially those kept in cities, need close watching, and the stables should be frequently inspected.

Milk from diseased cattle: Milk from diseased cows is especially dangerous, and we may assert that the use of this article from tuberculous cows is very hazardous. Sufficient evidence has been offered by good and careful authorities to prove that there is a possibility of the transmission of tuberculosis by means of the milk, and phthisis is quite a common disease among milch cows when crowded in ill-ventilated stables. Fortunately, the secretion of milk is checked during many of the acute cattle diseases, but there is the risk of carelessness on the part of dairymen; hence inspectors should be always on the alert.

Finally, there is the great danger of the transmission of contagious diseases—the milk acting as the carrier. This fact has been carefully noted in England, and many epidemics of typhoid fever, scarlet fever, and diphtheria have been traced to the dairyman's house.

Mr. Ernest Hart, of London, has epitomized about all that is known on this subject in an article read by him before the International Medical Congress in 1881. He sums up as follows:

"The number of epidemics of typhoid fever recorded in the abstract as due to milk is 50; of scarlatina, 15; of diphtheria, 7. The total number of cases occurring during the epidemics traced to the use of infected milk may be recorded in round numbers as 3500 of typhoid fever, 800 of scarlet fever, and 500 of diphtheria. When it is remembered that barely ten years ago we were utterly ignorant of milk being a carrier of infection, and that consequently these epidemics have all occurred within one short decade, it will be seen how vitally important is the safe guarding of our milk supplies from contamination."

The number of *The Lancet* for October, 1883, No. 33, p. 652, records an epidemic of typhoid fever at St. Pancras, the details of the investigation being given by Mr. Murphy, Medical Officer. There were 431 cases in 276 houses, and 220 cases were traced back to a dairy which supplied most of the houses with milk.

We can easily account for the method of transmission in many cases. Thus, a can of milk—a fluid especially apt to absorb, and take up impurities from the surrounding air—may have been exposed to the emanations from a case of scarlet fever, or the can wiped out with a soiled towel or cloth from the patient. The cases of typhoid fever traced to dairies have, as a rule, been accounted for by the contaminated water which has been used to dilute the milk or wash out the cans.

That the causes of the epidemics of some zymotic diseases have not been traced out in this country, is probably due to want of care on the part of our sanitary officials.

I shall ask you now to consider a plan for a control of the milk supply, which I think should be followed by all sanitary officials. A registry of the milk-dealers should be kept, backed up by the law, if necessary, and this should include the name of the dealer, the location of the farm, the amount of milk sold daily, and after inspection of the farm and the milk, notes should be added as to the quality of the milk, the condition of the farm-yards and the cattle, the breed of the herd, and the kind, quality, and quantity of feed given. If this plan is followed out, it will not be long before a complete sanitary control can be kept over the milk supply. We are working on this plan in Paterson, but it is too early to arrive at results. So far it has worked well.

Meat Supply.—Most of our larger cities provide for meat inspection in their markets, but it begins and ends with the inspection of the meat actually exposed for sale, and as a rule only meagre, putrid, and immature meat is condemned. This system is

defective in that it does not provide for the surveillance of slaughter houses, and the examination of all cattle before or immediately after killing, and before the meat is offered for sale. In many of our cities the cattle are brought to the butcher by railroad after a long journey; they arrive in an exhausted and feverish condition, and are not fit to be used as food. In our smaller towns and villages, only the very young or very old cattle are slaughtered for local use. Not only are the cattle actually diseased at the time of killing, but the meat itself, by improper treatment, may act as a home for dangerous germs. Mr. Francis Vacher, of Birkenhead, in an able paper read before the International Medical Congress, refers to several ways in which meat might spread diseases, thus, it might itself be in a pathological condition, or serve as a medium in which disease germs were nourished and multiplied, or it might serve as a nidus in which such germs rested. Thus, a specific disease may be communicated to man by the ingestion of meat tainted with splenic fever, or foot-and-mouth disease, or from a tuberculous animal.

We are warranted, then, in claiming that meat inspection should include an examination made by competent persons before death, or, before the meat shall be exposed for sale in the markets; this plan may require the services of a skilled veterinarian, but it seems to me essential.

As many of our towns are now supplied almost entirely with meat killed and dressed in the West, and brought to market in refrigerator cars, this system of inspection will perhaps have to be followed by officials appointed by the general government, for it would not be equitable to burden a city with work which does not concern it.

A CASE OF PAGET'S DISEASE OF THE NIPPLE AND AREOLA.

By G. E. DE SCHWEINITZ, M.D.

IN 1874, Sir James Paget published his now well-known classical paper, "On Disease of the Mammary Areola preceding Cancer." Since that time numerous publications upon the subject have appeared, especially abroad, but also to a lesser extent in this country. The affection, variously designated as "Eczema of the nipple and areola," "Paget's disease of the nipple," and more recently "Malignant papillary dermatitis," has been the subject of clinical study by Morris, Lawson, Napier, Heywood Smith, Forrest, Munro, McNaughton Jones, Savory, Chambers, Welply in Great Britain, Busch in Germany, and C. B. Porter, Sherwell, S. W. Gross, and Duhring in this country. The pathological histology of the disease has been especially investigated by Mr. Butlin, Dr. Thin, Dr. Goodhardt abroad, and by Dr. Cabot in this country.

It is the object of this paper to place another instance upon record, for, as is justly remarked by Dr. Thin, "opinions regarding the exact nature of this class of cases will probably vary considerably until full details regarding a considerable number of them have been published." The patient whose case

forms the subject of the present sketch was under the care of Prof. John Ashhurst, in the University Hospital, and it was by his kind permission that I was permitted to examine the diseased nipple and areola, together with the cancerous breast which lay beneath them.

Mrs. B., aged 52, married, and the mother of children. Her father and mother were killed by an accident; of the two brothers and two sisters who formed the remainder of the family, all are living and healthy. She has no knowledge of her grandparents. Her own health has usually been good. Six years ago she fell from a step-ladder and considerably bruised the right breast and right side of the body, and was troubled for some time afterwards with shooting pains in this region. About six months after the accident, she noticed a crust forming upon the nipple, which constantly reformed after removal. This crust grew larger and spread gradually to the areola, while the nipple began to retract. A little more than a year ago she first began to perceive that a lump was forming in the breast, and that for three months preceding its appearance there were marked increase and extension of the disease of the nipple and areola.

Such is the history obtained from the woman at the time she presented herself for operation. The gross appearances of the breast at this time were as follows: The gland was enlarged and thickened, and its weight markedly increased. The nipple was completely retracted, and the areola and the skin around it, over an irregularly oblong patch about three inches by two inches in extent, of a deep-red color, with a peculiar glossy appearance, which fully justified Sir James Paget's description of these cases in its resemblance to the glans penis when affected by acute balanitis. The subcutaneous veins over the upper part of the breast were enlarged. The axillary glands were involved to a moderate extent.¹

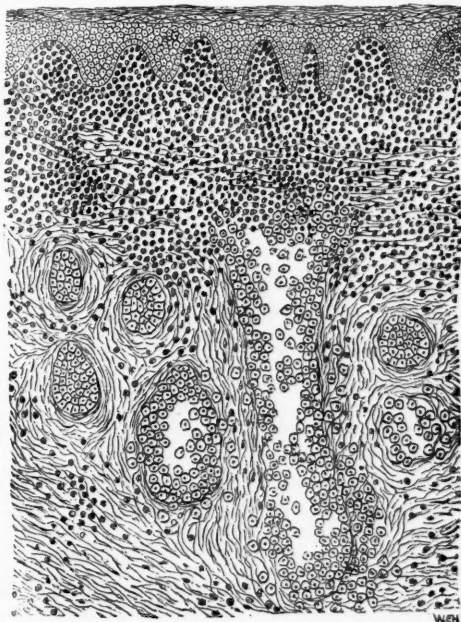
Microscopic Appearances.—The epidermis, especially that overlying the nipple and areola, was much changed and at times disintegrated. Here and there narrow strips of the horny layer remained, but in some places it had entirely disappeared. The outlines of the rete mucosum were often but poorly defined between the remnants of the horny layer above and the dense small-cell infiltration below, and in spots its entire absence was noted, allowing the papillary layer of the cutis to stand out in small finger-like prolongations from the edge of the section. This latter fact, however, was probably due to faulty preparation or careless handling of the section.

In the more diseased parts, changes of a retrograde nature were visible; viz., swelling of the nucleus, its disappearance, and the vacuolated cell-substance as it has already been described by Dr. Thin. The mucous layer of the epidermis had further undergone proliferation and extension downwards. This appearance was most marked in such sections as included both healthy and diseased tissue,

where the descent of the rete, as it were, showed in marked contrast to its normal outlines and thickness in the healthy portion. In some sections there were present a few cell-nests, giving the appearance of an epithelioma, a condition also noted by Mr. Butlin; but as this only occurred in those cuts which were made transversely or obliquely, I think it not improbable that they were due to the method of cutting the sections, for precisely similar appearances can be obtained by making similar sections of healthy skin.

The corium, and to a less extent the subcutaneous tissue, was densely infiltrated with small round cells (leucocytes). So dense was this infiltration, that in the upper parts of the corium, in the

FIG. 1.



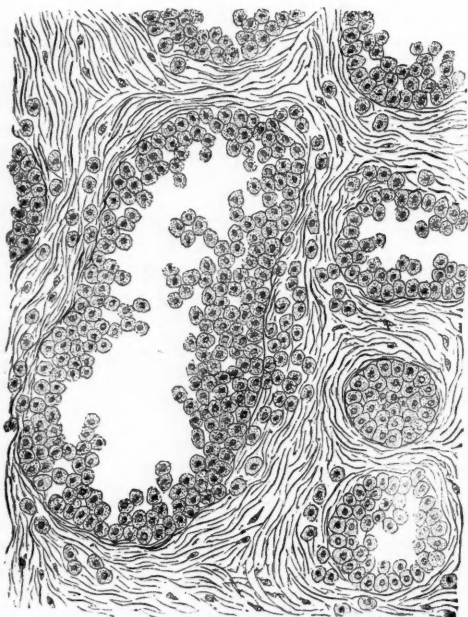
Section through the nipple, showing infiltration of the cutis. Dilated ducts with their epithelium proliferating are also seen. The epidermis is partly diagrammatic, and does not represent its appearance as described in the text.

immediate neighborhood of the nipple, it entirely substituted the normally present tissue. The papillary layer of the cutis, while it was in no instance entirely destroyed, was displaced, as it were, by this small round-cell infiltration. The disposition of these cells was at times peculiar, being often uniform, sometimes gathered together in round nest-like masses separated by intervals of non-infiltrated tissue, and here and there they were crossed by spindle-cells and fibre-cells, giving somewhat the appearance of young cicatricial tissue. Passing to the deeper layers of the corium (pars reticularis) and the subcutaneous tissue, here also the round cells were present to a less degree than above. Even in the subcutaneous tissue now and then an

¹ A chromo-lithograph of this case is to be seen in the International Encyclopedia of Surgery, vol. iv. p. 634.

isolated mass of round cells similar to the ones just described was noted, and usually in intimate relationship to a bloodvessel. The bloodvessels of the corium were numerous and often dilated. The small round cells are no doubt for the most part emigration corpuscles, and not, I think, as has been suggested, derived from a disintegration of the cells of the rete and an escape of their nuclei. The most prominent features of the subcutaneous tissue were the distention of the lymph-spaces, and the fact that they were in many places filled with epithelial cells; together producing a picture quite indistinguishable from any section of ordinary spheroidal-celled carcinoma. This arrangement could be seen not only in the deeper layers of the subcutaneous connective tissue, but also higher up, where it joined the lower layer of the corium, and even up into this tissue almost to its union with the epidermis. Examination of the lactiferous ducts revealed their epithelium in a high state of proliferation, and no longer of the shape natural to the part. The proliferating epithelium was often seen escaping from the ducts and pouring out into the surrounding connective tissue, and here arranging itself in the spaces before

FIG. 2.

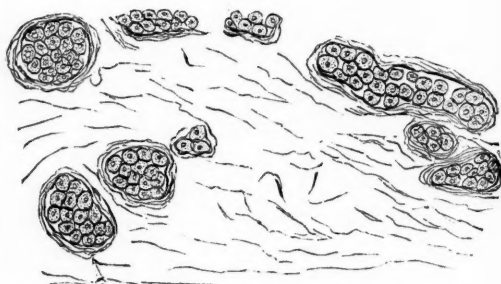


Cross section of the nipple, showing the dilated ducts with proliferating epithelium pouring out into connective tissue, and arranging itself in the spaces.

described. This choking up of the lumen of the ducts and proliferation of their epithelium, could be traced from their outlets downwards into the hardened nodules of the breast. Sections of these nodules showed the following structure: In the younger parts the acini were dilated and gradually

filling with epithelium. Finally they coalesced and formed a large carcinomatous alveolus. Alveoli of this nature having become superdistended with epithelium, the epithelium escaped into the connective tissue and new cancer cylinders were thus formed, lying in the distended connective-tissue spaces, precisely as had occurred in the nipple.

FIG. 3.



Nests of spheroidal epithelial cells from the nodules of the breast tumor.

The type and character of the epithelium were preserved throughout; spheroidal-shaped cells with outlines more or less perfectly defined and small nuclei.

The following propositions represent a brief recapitulation of the more important points in the foregoing description:

1. A dermatitis characterized by a proliferation, and at times degeneration of the mucous layer of the skin, and a dense small round-cell infiltration especially of the upper part of the cutis, substituting the normally present tissue of the papillary layer.
2. Proliferation of the epithelium of the galactophorous ducts and its passage out into the surrounding connective tissue of the nipple.
3. Distention of the lymph-spaces of the subcutaneous connective and their occupancy by epithelial cells similar in character to those found in the distended ducts.
4. A similar epithelial proliferation in the gland-tissue of the breast, and the formation of a spheroidal-celled carcinoma.

From this *résumé* it will be seen that these observations are of interest because they go to confirm similar facts noted by other investigators. The question whether this dermatitis is the primary disease or whether it is produced, as Dr. Thin suggests, "by a destroying agent which extends from the mouths of the lactiferous ducts into the surrounding papillary layer," the poison being the cancerous epithelium of these ducts as distinguished from their normal epithelium, is still an open one. The clinical history of this case, which shows that the disease of the areola and nipple existed for nearly five years before the appearance of the tumor of the breast, would rather, I think, incline to the correctness of the former view, although Dr. Thin does not believe this objection to his view to be a valid one. Certainly this case, taken in connection with

other reported cases, would indicate the correctness of the following propositions:

1. The malignancy or malignant tendency of the disease.
2. The tendency of the changed epithelium of the ducts to travel downward and produce carcinoma of the breast.
3. The propriety of excising a breast thus affected before any tumor of the gland tissue itself can be detected.

The following references to the literature of the subject may be of interest:

Sir James Paget: St. Barthol. Hosp. Reports, vol. x., 1874, p. 87; and vol. xiv., 1878, p. 87. *Butlin*: Medico-Chirurg. Trans., vol. lix., 1876, p. 107; and vol. lx., 1877, p. 153. *Morris*: Medico-Chirurg. Trans., vol. lxiii. p. 38; *Ibid.*, p. 44. *Lawson*: Clinical Trans., vol. xiii. p. 37. *Thin*: Path. Soc. Trans., vol. xxxii. p. 218; British Med. Journal, May 14, 1881; *Ibid.*, May 21, 1881; Lancet, vol. i., 1881, p. 458. *Chambers*: Lancet, 1879, vol. ii. p. 743. *Savory*: British Med. Journal, Dec. 15, 1877. *Welply*: *Ibid.*, 1880, vol. i. p. 555. *Napier*: Glasgow Med. Journal, Sept. 1882, vol. xviii. *Heywood Smith*: Lancet, 1882, vol. i. p. 684. *Forrest*: Glasgow Med. Journal, 1880, vol. xiv. p. 457. *Munro*: *Ibid.*, 1881, vol. xvi. p. 342. *McNaughton Jones*: Path. Soc. Trans., vol. xxxii. p. 242. *Porter*: Boston Med. and Surg. Journal, May 4, 1882. *Gross, S. W.*: Tumors of Mammary Gland, p. 28; Phila. Med. Times, July 5, 1879, p. 486. *Duhring*: American Journal of Med. Sciences, July, 1883, p. 116. *Sherwell*: Trans. of Dermatological Association for 1883; Phila. Med. Times, Sept. 8, 1883. *Von Busch, W.*: Langenbeck's Archiv Bd. xxi. S. 673.

MEDICAL PROGRESS.

INHALATIONS OF CARBONIC ACID IN WHOOPING-COUGH.—M. CAMPARDON has recently experimented with this treatment in the case of a child of ten years of age, sick for five months. The carbonic acid gas used was obtained from an apparatus for making seltzer-water, and was slowly inhaled through a rubber tube placed at the nasal orifices. After a few inhalations the cure was complete. M. Campardon insists that the gas should always be charged with vapor of water. The method is very cheap, and may be commonly used on this account.

M. CONSTANTIN PAUL employs this gas in his service to give relief from the pains accompanying certain affections of the respiratory apparatus, particularly tuberculous laryngitis. He obtains a very prompt and marked relief.

M. MOUTARD-MARTIN advises compressed air in pertussis. It does not cure the disease, but it diminishes the number of paroxysms, and this diminution enables the patient to take food more readily.

M. DUJARDIN-BEAUMETZ states that while the actions of compressed air and carbonic acid gas are entirely different, the effects are very similar. Compressed air acts like oxygen, by controlling vomiting; the carbonic

acid gas acts as an analgesic, suppressing the laryngeal reflex which brings on the paroxysms.—*Revue de Thérap.*, December 15, 1883.

INTESTINAL TUBERCULOSIS FROM SWALLOWING TUBERCULOUS SPUTA.—MOSLER reports the case of an almost idiotic patient, who insisted on swallowing his sputum. Two days after the commencement of an attack of specific bronchitis he began to have diarrhoea and an intestinal colic, which continued until his death, about the eighth day. Tubercles were found in the lungs; of the other organs only the intestines were affected, the jejunum being most markedly tuberculous.

Mosler attributes the intestinal tuberculosis to the fact that the sputa were swallowed. He has not been able to verify this by experiments on animals, but he has caused violent inflammation of the stomach and small intestine by feeding them with tuberculous sputa and masses.—*Journ. de Méd. de Paris*, December 22, 1883.

ALIMENTATION BY MEAT-JUICE.—At a recent meeting of the Société de Thérapeutique, M. BRAME read a note on the preparation and use of meat-juice flavored with orange-flower water.

M. DUJARDIN-BEAUMETZ gave the following as a method for disguising the disagreeable odor and taste of powdered meat: Two ladlefuls of meat-powder and the same quantity of syrup of punch are thoroughly mixed, when a variable quantity of cold milk is added, according as the patient desires a more or less liquid preparation. When the taste of rum becomes disagreeable, syrup of wild cherry may be added.

M. BLACHEZ thinks that meat-juice contains only a small quantity of the active substances of the meat. When meat-powder cannot be obtained, crude meat may be substituted for it; this may be prepared so as to do away with all disagreeable qualities. It should be chopped finely, the pieces rolled in flour, and then butter is added; these pieces are then thrown into the soup.

M. CATILLON recommends the addition of Madeira wine to the powdered meat, especially if it is desirable that only a small quantity of alcohol be given to the patient.—*Revue de Thérap.*, December 15, 1883.

THE PRESENCE OF PHTHISIS IN PRISONERS.—Whilst the mortality in the Prussian prisons in 1878-79 and 1880-81 averaged 30.6 per cent.—amongst a people in good hygienic circumstances—there was an average death-rate in Prussia in 1876-1880 of 25.5 per 1000. Among the people of the mountainous districts the average was 10.54 per 1000, and amongst inhabitants of the lower country 21.4 per 1000. Of all diseases, phthisis occupied the first place; so that the death-rate of phthisis amounted to 40 or 50 per cent. of the whole number of deaths. In the majority of cases the phthisis was acquired in the prisons. As a cause for this, the insufficiency of disinfection stands first. Prominent, also, as a cause, is the custom of putting prisoners together in sleep- and work-rooms.

The excessive mortality of phthisis must be accounted for by the universal presence of the bacilli or their transportation by articles of clothing; the prison life is also favorable to the development of the bacilli, on account of the lowering of the vital forces.—*Centralbl. f. klin. Med.*, December 8, 1883.

HYDATID CYSTS OF THE ORBIT.—M. Chauvel recently read before the Société de Chirurgie a report on a paper by M. DIEU relative to the history of this affection. The paper is based on one personal observation.

The patient was an Arab woman, who had had exophthalmia for a year. The eye was immovable, and looked upward and outward. Vision was abolished, and there was intense venous congestion of the papilla. Puncture of the eye gave issue to a clear liquid, vision was reestablished, and the patient left the hospital, but the strabismus continued, and atrophy of the papilla having ensued, vision was lost.

M. Dieu draws the following conclusions: Hydatid cysts of the orbit are analogous to those of other regions, and the hooklets are easily found in the liquid.

They are more frequent in males than in females, the proportion of collected cases being eighteen to six.

Two-thirds of all cases have occurred before the age of twenty-one years.

The symptoms are the same as those of encysted tumors. The pains may be very acute, and the symptoms of surrounding inflammation more pronounced than with other benign tumors.

The course of the affection is generally slow, though sometimes it is rapid.

The diagnosis is established by palpation, when the cyst is accessible, by exploratory puncture and chemical and microscopical examination of the liquid.

The prognosis is serious; for, after operation, the eye has been lost six times, and vision has been lost or diminished in twelve cases. Of twenty-six cases there were two deaths. The treatment consists in puncture, followed by incision, and drainage.—*Revue de Thérap.*, December 15, 1883.

ADENOID VEGETATIONS OF THE PHARYNX.—DR. K. DÉHIO concludes an article on this subject as follows:

1. The adenoid vegetations which are frequently developed in the naso-pharyngeal cavity of a child are shown externally by the peculiar appearance of the face; this peculiarity consists in permanent opening of the buccal cavity, lengthening of the face, feebleness of the jaws, projection of the cheek bones, and projection forward of the superior maxillary region.

2. Anatomically, this modification consists essentially in a deformity of the superior maxilla. This bone is flattened transversely in its buccal part. The alveolo-dental curve is deformed both in its form and dimensions. The lateral parts are sometimes diminished to one-half their transverse diameter. *Per contra*, the depth of the palatine vault is increased. In this way, the vault is narrowed and deepened.

3. The teeth, on the contrary, preserve their volume, and in this manner they are ranged irregularly before and behind the dental arch. More often they project forward, *en masse*, producing a considerable projection of the whole anterior range, so that the front teeth project over the lower lip.

4. This peculiar conformation of the palatine vault and the dental arch has been variously interpreted. An ethnological signification has been generally given to it, some authorities regarding it as evidence of superiority, others of inferiority of race.—*Revue de Laryngol., d'Otologie et de Rhinol.*, December 1, 1883.

VERATRINE IN TREMBLING.—M. BAZILE FÉRIS has used veratrine in some cases of trembling, and has obtained excellent results. He has used it in thirteen cases; six being of alcoholic origin, two came on after typhoid fever, and one was due to sclerosis *en plaques*. All patients were rapidly relieved of the disagreeable symptoms.

Férís ordinarily gives veratrine in pills containing gr. $\frac{1}{10}$ each, the dose being four pills, to be taken during the day. From his results he draws the following conclusions: Trembling dependent upon alcoholism, or upon affections of the nervous system, or consecutive to pyrexia, disappears under the veratrine treatment. The action of the drug is almost instantaneous, but the administration should be kept up for some time after the trembling has disappeared.—*Journ. de Méd. de Paris*, Dec. 8, 1883.

INJECTION OF TINCTURE OF IODINE INTO OVARIAN CYSTS.—CANTIERI has adopted this method in two cases, with good results.

Commencing at the superior part of the cyst, he inserted the needle of a Pravaz canula, and injected half a canulaful of tincture of iodine, this being repeated from four to eight times, at intervals, until the lower portion of the cyst was reached. In neither of the two cases was there collapse, intoxication, or inflammation, and there was only slight fever. The size of the tumor greatly diminished. In cases of multilocular cysts, the injections should be multiple.—*L'Imparziale*, Dec. 1883.

TEARS OF BLOOD.—This rare phenomenon, the reality of which has often been doubted, seems however, to occur under certain circumstances. Damalix has published an interesting paper on this subject in the *Archives d'Ophthalmologie*. He was led to study it by the observation of a case in M. Panas's wards. The patient, a young, hysterical girl, said that she had often noticed a flow of blood from her eyes, and spots of blood on her handkerchief after wiping them. For some time the hemorrhage occurred every night. A careful examination of the eyes showed nothing abnormal, but there were photophobia, facial neuralgia, and considerable blepharospasm. This case, as M. Damalix himself says, cannot be considered as conclusive, in spite of the probable veracity of the girl and her parents, as the hemorrhage was never seen by him. But there are on record some observations which do not leave room for doubt. In a case of Hauser, and in another of M. Brun, the observer could actually see the blood flowing from the eyes like tears; there was no possibility of trickery, and microscopical examination of the fluid showed that it was really blood. As for the diagnosis, the name blood-tears must not be applied to the various forms of hemorrhage caused by some organic lesion of the mucous membrane, such as small polypi, etc. The true form has nothing to do with any visible lesion, and the course of the accidents is remarkably irregular. Sometimes there are no premonitory signs, the blood appearing without effort or pain; in other cases, the patient feels for some time pain in the forehead, or at the root of the nose, or, it may be, a feeling of tickling and heat in the lids, which disappears when the blood begins to flow. The amount of blood lost varies from a few drops to a wineglassful; the flow never lasts more than

a few minutes, is always intermittent, and generally coincides with other hemorrhages in the skin or mucous membranes, or, on the contrary, with *suppressio mensium*. A study of the etiology of the disease shows that it is most frequent in hysterical women suffering from anæmia or hæmophilia.—*British Med. Journ.*, Dec. 8, 1883.

THE TREATMENT OF LEUKÆMIA, PSEUDO-LEUKÆMIA, AND PROGRESSIVE PERNICIOUS ANÆMIA BY ARSENIC.—DR. WARFVINGE, of Stockholm, reports eleven cases of progressive pernicious anæmia, as many of pseudo-leukæmia, and two cases of leukæmia treated at the Sablatsberg Hospital. The two cases of leukæmia and seven of pseudo-leukæmia and progressive anæmia were put on arsenic treatment.

The first case of leukæmia was apparently completely cured after three months' treatment by arsenic; there had been a great deal of lymphatic enlargement, but the glands returned to their normal volume, and the blood-globules increased to the normal number. The second case of leukæmia was in a very advanced stage, the spleen being enormously enlarged, and there were an equal number of white and red corpuscles. After twelve weeks of arsenic treatment, the volume of the spleen was considerably diminished, and the ratio of the white to the red globules had fallen to 1:14; the general health being also much better. During the course of the treatment several hypodermatic injections of Fowler's solution were made.

As to the cases of pseudo-leukæmia, the treatment was without effect in two, but gave the best results in the other five cases. In one case, of lymphatic form, the cachexia and marasmus attained a marked degree in spite of the administration of the iodide of iron; but after five weeks of arsenic treatment, the amelioration was very marked. In another case, of lymphatic form, the arsenic evidently acted 'in reducing the size of the ganglia, but the patient died of asthma, caused probably by pressure of the enlarged ganglia of the mediastinum. Two other cases left the hospital with all the signs of health, and a fifth was very much better.

The cases of progressive pernicious anæmia were always ameliorated, and sometimes cured. Treatment by arsenic was only begun after a long and fruitless trial with iron and tonics. Amelioration was manifest after a short time, and the quantity of red blood-corpuscles was sensibly and rapidly increased. In some cases there was a relapse, followed by the death of the patient.—*Centralbl. f. gesamt. Therap.*, No. ix., 1883.

EXTIRPATION OF THE LARYNX AND THYROID GLAND.—DR. NOVARO performed this operation at the Ospitale S. Giovanni, in Turin, on October 1st. The patient was a male, æt. 54 years. The operation was performed on account of epithelioma involving the larynx, thyroid body, and a part of the wall of the pharynx, the latter being also excised. The patient died of pneumonia a month after the operation.—*Gaz. degli Ospitali*, Dec. 9, 1883.

FIRST LUNG RESECTION IN ITALY.—RUGGI recently performed this operation on a woman æt. 30, who had phthisical cavities in the upper lobe of the right lung. She also had fungous arthritis of the knee-joint. The

second and third ribs were resected, with their cartilages, for about two and four-fifths inches; the pleura was opened and separated from the lung, without any respiratory or circulatory troubles. The whole of the upper right lobe was removed by means of Billroth's pincers. The temperature and respiration became normal after six hours. The patient died on the ninth day of carbolic acid poisoning.

Mosler, in commenting upon this case, declares that while traumatism, bronchiectatic caverns, and gangrene may be legitimate excuses for this operation, tuberculosis is not.—*Centralbl. f. klin. Med.*, Dec. 1, 1883.

SCLERODERMA.—At the close of an article on scleroderma in the adult, DR. GIORGIO NICOLICH draws the following conclusions:

Scleroderma is a special inflammation of the skin and subcutaneous connective tissue, which at times affects the mucous membrane of the mouth and vagina. Its course is very slow, the initial symptom being hyperplasia; the final, atrophy of the affected part. It is in all probability secondary to neurotrophic alterations.

The disease may affect the skin of the whole body, but more often that of the upper half. Females are more disposed to the disease, and it is principally observed between the ages of twenty and thirty years.

The most frequent cause is the action of cold on the sweating skin, or simply catching cold. Cure is possible only in the first stage of the disease, though notable amelioration can be obtained in the second stage. Massage and electricity give the best results.—*Lo Sperimentale*, October, 1883.

TURPENTINE-IODOFORM.—DE RENZI recommends a solution of iodoform in turpentine as an efficacious inhalant in pulmonary disorders, in phthisis especially. He has used this mixture for some time with very good results. Five or six drops of the solution are used every two hours, placed on a piece of wadding in an inhaler.—*L'Imparziale*, November, 1883.

NEPHRECTOMY.—DR. N. P. DANDRIDGE, of Cincinnati, reports in *The Cincinnati Lancet and Clinic*, of December 29th, the case of an unmarried female, aged twenty-two, from whom, on November 2d, he extirpated the right kidney by the median incision on account of caseous pyelitis. The patient died the same day.

On June 19, 1883, at the Sussex County Hospital, Brighton, MR. JOWERS extirpated the left kidney, on account of scrofulous degeneration, in a married female aged fifty-five, who suffered from constant dull pain in the abdomen, associated with a hard, movable mass, about the size of a large cocoanut, and frequent attacks of hæmaturia. The operation was performed by the abdominal incision. The patient died on the 21st.

AMYOTROPHIC LATERAL SCLEROSIS.—At a late meeting of the Société de Biologie, M. MARIE reported the results of an autopsy made on a woman, in the service of M. Charcot, who had been affected with this disease. The chief fact, of great physiological and clinical interest, consisted in the presence of profound alterations of the motor convolutions, granular bodies being found in the white substance, and the large pyramidal cells had disappeared. The granular bodies could be followed

into the direct and crossed pyramidal fascia of the cord, into the protuberance and peduncles, and into the internal capsule to the point indicated by Flechsig as giving passage to the fibres of the pyramidal fascia; and the fibres of the same fascia were found altered in the white substance of the frontal and ascending parietal convolutions.

These facts establish anatomically the continuity of the fibres of the pyramidal fascia from the cortex to the lateral regions of the cord, and support Charcot's views of the systemic nature of the disease.—*Gaz. Hebdomadaire*, January 4, 1884.

DYSPHAGIA FROM PARALYSIS OF THE LEFT RECURRENT LARYNGEAL.—K. DÉHIO reports the case of a woman, aged fifty-four years, who had had a hard chill two weeks before her admission into the hospital. At the time of her admission, she was somewhat feverish, respiration accelerated, and the end of the nose and the lips were cyanosed; the cough was paroxysmal, but did not commence by closure of the glottis; it was very harsh, and the voice was a monotone. On laryngoscopic examination, the glottis was seen to be drawn to the right, raised, and almost immovable, the right side only being slightly drawn down during the efforts at phonation and deglutition. The left ary-epiglottic ligament showed the characteristic signs of paralysis of the left recurrent laryngeal.

The clinical interest of the case, which was ameliorated by faradization and injections of strychnia, consisted in the association of paralysis of the recurrent with concomitant trouble of the act of deglutition. The cases reported by Gerhardt, Türk, and Von Ziemssen, caused by diphtheria, bulbar paralysis, and other affections of the cerebral centres, all point to local muscular paralysis, or to a simultaneous affection of the superior laryngeal, and in these cases the troubles of deglutition are explained by paralysis of the ary-epiglottic muscles. In the present case, to explain this trouble, the author admits that the left recurrent innervates the ary-epiglottic muscle of the opposite side.—*Revue Mens. de Laryngol. d'Otologie*, etc., January, 1884.

TUBERCULOUS NODULES IN LUPUS.—M. MALHERBE has recently made a histological examination of a tumor, diagnosed as lupus, removed from the pre-auricular region of a woman *æt.* 34. Tuberculous nodules were found in it, furnishing a rare confirmation of the opinions of those who class lupus among the local tuberculoses.—*Gaz. Méd. de Nantes*, December 9, 1883.

SUDDEN DEATH IN DIABETES.—Of four hundred cases of diabetes observed by FRERICHs, a certain number died suddenly. The common termination was by coma, though its evolution varied in many cases. The coma generally came on after some prolonged effort, great feebleness, coma, and death rapidly resulting. In other cases the course was less rapid; after some premonitory symptoms, cephalalgia, delirium, pains, attacks of mania, and dyspnoea, with or without cyanosis, came on: the breath has a sweetish odor which resembles that of acetone or chloroform; recovery is rare. This form lasts from three to five days. In a third series of

cases pain and dyspnoea are absent, coma gradually comes on, the odor of the breath becomes more pronounced, and the urine gives a reddish-purple reaction with perchloride of iron. Coma is more frequent than is generally supposed, and, with phthisis, constitutes the great danger for diabetics.

Frerichs thinks that in the first group the cause of death is cardiac paralysis, due to degeneration of the cardiac muscle. In the last two groups we can simply ascribe it to "diabetic intoxication" without being able to say what the poison is.—*Gaz. Hebdom.*, January 4, 1884.

PORRO OPERATION.—DR. VIOLANI performed this operation on December 18th. The patient died in a few days of septic peritonitis.—*Gaz. Med. di Torino*.

EXTRACT OF PHYSOSTIGMA IN DIARRHOEA.—MASCHKA has several times used the extract of the Calabar bean in diarrhoea, and with a good deal of success, finding it superior to opium. It is very efficacious in the treatment of nervous or emotional diarrhoea, and the diarrhoea caused by acute intestinal catarrh. There is but little danger in its administration; less than in the usual opiates, especially in children, and considerably less than with the extract of *nux vomica*, which has analogous properties.—*Revue Scientifique*, January 5, 1884.

CYSTOTOMY FOR STRUMOUS CYSTITIS.—At the meeting of the Liverpool Medical Institution on December 20, 1883, DR. RAWDON brought forward the case of a boy, aged seven, who had severe cystitis. He was a weakly boy; micturition was very frequent and painful, and the urine contained pus and blood. Notwithstanding general treatment, he was rapidly getting worse, when cystotomy was decided upon. Under chloroform, the usual lithotomy wound was made upon a staff; the bladder was explored without detecting anything, and a lithotomy tube introduced. Immediate relief was experienced. Appetite and sleep returned, and the boy was, after a time, allowed to go home with the wound partially closed. For two or three months he was able to run about, when the tubercular mischief in the kidney set up a lumbar abscess, which soon terminated fatally. The urinary organs affected with tuberculosis were shown.

MR. REGINALD HARRISON strongly recommended cystotomy, not only for cases of chronic cystitis from other causes, which might be cured by it, but for the relief it afforded to the distressing symptoms which accompanied cases like the present. He had now performed the operation a great many times, and was much impressed with the good results it yielded.—*Lancet*, January 5, 1884.

LIGATION OF THE COMMON CAROTID IN A CHILD.—M. BERTIN, of Cray, reports the case of a child, one year of age, in which the common carotid was successfully ligated for angioma of the parotid region of the jaw.—*Revue de Thérap.*, January 15, 1884.

FLOATING KIDNEY.—M. BERTIN, of Cray, describes a case of floating kidney which came into contact with the uterus. It could be felt by vaginal examination, and was easily displaced by movements and changes of position.—*Revue de Thérap.*, January 15, 1884.

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will be liberally paid for upon publication. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Editor's Address, No. 1004 Walnut St., Philadelphia.

SUBSCRIPTION PRICE, INCLUDING POSTAGE,
PER ANNUM, IN ADVANCE, \$5.00.
SINGLE COPIES, 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address, HENRY C. LEA'S SON & CO.,
Nos. 706 & 708 Sansom Street,
PHILADELPHIA, PA.

SATURDAY, FEBRUARY 2, 1884.

GOUTY NEPHRITIS.

In a very interesting paper upon this subject, read before the Berlin Medical Society, which appears in the *Berliner klinische Wochenschrift* for January 7th, VIRCHOW first calls attention to the fact that the association of gout with uric acid-gravel and stone, is, in his experience, a very much rarer event than is commonly supposed; that the number of cases of uric acid-stone or gravel of similar composition in the urinary passages, attributable to gout, is very few; while, on the other hand, gouty subjects are in small danger from such concretions. He calls attention, too, to the number of instances in which the morbid anatomy of gout is discoverable, consisting in the presence of numerous tophi of urate of sodium, often of considerable size, in the ears, on the hands and feet, and even in the foot and leg, without the paroxysms of pain which are considered almost essential to the diagnosis of this affection. These Virchow considers positive symptoms of gout, while the nodes and exostoses—true bony structures—which make up the morbid anatomy of *arthritis deformans*, and which have been more or less associated in the minds of physicians and others with gout, are no part of this affection, unless it happens, as once only occurred to him, that they are associated with the tophous deposits. He declares also that the theory which makes gout the result of the free consumption of albuminous food, is erroneous, because he has met it so frequently in the poorest classes, who are strangers to such a diet. He has, however, no hypotheses of his own to offer, but admits that the disposition is an hereditary one.

But, while gravel and larger concretions in the calyces are not a part of the pathology of gout, the presence of crystalline masses in the uriniferous tubules—not in the interstitial tissue, as Ebstein has announced—is a constant condition, and along with this, chronic interstitial nephritis. Usually, the precipitates are found in the middle section of the medullary cones, more seldom at the apex of the papillæ, and most rarely at their circumference. In these situations they are visible to the naked eye. Microscopically, the concretions are made up of rhombic columns perfectly colorless.

The interstitial nephritis, which is also a part of this condition, and which illustrates the typical chronic form, or contracted kidney, involves, not the medulla, but the cortex. And here the tubules are free from concretions. What, then, can be the cause of the inflammation? In this respect, the inflamed kidney is comparable to the inflamed joint, in which, too, the tophous deposit is not at the seat of inflammation, the synovial membrane, but in the cartilages and ligaments. It must, then, be the fluids charged with sodic urates—the urine in the one instance and the synovial fluid in the other—which are the irritant.

This being the case, can we not have a gouty nephritis which is not associated with urate deposits? This question Virchow answers by a very interesting account of his own case. He had never in his life had an attack of gout. He had occasionally had trifling swellings about his finger-joints, which were red and painful, but without other symptoms. In the previous year, however, his bladder became irritable. There was frequent desire to pass water, and a burning sensation in the urethra, especially at the external orifice. This was intermittent, and he gave it little attention. But the disappearance of a decided feverish state in November of that year was followed by a decided irritation of the urinary organs, with passage by the urethra of almost pure pus, oftentimes but a few drops at a time. Surgical examination failed to discover the seat of its origin. Albumen and casts were also present. He then set himself to determine the source of this pus. He reasoned, if it is a product of mucous membrane, then must it be mixed with an appreciable amount of mucus, which is not the case if it be pus from an abscess or ulcer. To determine this, he added strong acetic acid to the slide, and was astonished at the sudden appearance of a large number of crystals of uric acid, obscuring for the time all other objects. Reasoning from this fact, he concluded that a decided alkaline treatment should help him. He immediately took a large dose of borate of soda, followed by Karlsbad water in the morning, with immediate relief. He continued this treatment,

and in three months there was neither pus, albumen, nor casts, and his urine, in his own words, "ist so klar wie der einer Jungfrau."

That the irritation and inflammation here referred to were the result of the action of urine highly charged with acid urates there can be no doubt, but whether our English confrères, to whom we owe most of our knowledge of gout, will admit this to be a case of that disease we are not so sure. If, however, the pathology of gout consists in a surcharging of the blood and all the fluids of the body with uric acid compounds, we do not see any reason why it should not be so included; and Virchow's experience suggests a mode of examination which we are confident has been rarely applied, and which, if followed, may often lead to similar practical results.

THE RADICAL CURE OF ARTIFICIAL ANUS.

SEVERAL papers have appeared during the past year, which throw some light upon the comparative value and safety of Dupuytren's operation and the more recent procedure of resecting a portion of the bowel and uniting the divided ends with sutures, for the relief of artificial anus. In the operation of the French surgeon, it will be remembered, the object is to destroy the éperon or spur-like process with the enterotome, so as to reestablish the natural route of the feces, and leave the closure of the abnormal opening to the efforts of nature, or promote its cicatrization by the hot iron or other measures, or, finally, fill the defect by a plastic operation.

Of 83 cases of this operation, collected by HERMANN, in the *Deutsche medicinische Wochenschrift*, No. 7, 1883, 7, or 8.5 per cent., died, 50, or 60.2 per cent., were complete cures, and 26, or 31.3 per cent., were partially successful, that is to say, the subjects recovered with a small fistule, compelling them to wear a compress and a bandage to prevent the escape of the intestinal contents. The time required for the cure varied from two to six months. At least three of the deaths were due to causes unconnected with the procedure, so that it may be said to be comparatively free from danger.

In view of the uncertainty and tediousness of Dupuytren's operation, the elder Gross, thirty-seven years ago, suggested to a patient excision of a portion of the bowel with suturing of the cut ends, but the proposal was declined. Hence it remained for Dr. Kinloch, of Charleston, S. C., in 1863, to carry the suggestion into effect, the report of the case having been published in *THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES*, vol. liv., 1867. Although the operation failed, to Dr. Kinloch belongs the credit of having been the first to practise enterectomy and enterorrhaphy for the lesion under consideration.

Up to the present date abdominal incision, with intestinal resection and suturing, has been practised in at least 37 instances, of which 29 have been analyzed in a valuable paper contributed to the *Revue de Chirurgie*, No. 7, 1883, by MM. BOUILLY and ASSAKY. The operators were Billroth in 7 cases, Schede in 3 cases, Julliard, Meusel, Rydygier, Schinzinger, and Wienlechner, each in 2 cases, and Albert, Bardenheuer, Baum, Bouilly, Dumreicher, Dittel, Esmarch, Gussenbauer, Hofmök, Hueter, Kinloch, Madelung, Novaro, Schonborn, Tauber, Thiersch, and Weiss, respectively, in 1 case. Of the 37, 11, or 30 per cent., died, and 26, or 70 per cent., recovered.

The cause of death was peritonitis in 7, embolism of the pulmonary artery in 1, collapse in 1, pneumonia in 1, and ileus in 1. Of the recoveries 25 were complete cures, and 1 failed. All of the operations, with the exception of that of Kinloch, which recovered, were done under antiseptic precautions.

It will thus be seen that, when compared with the more simple operation, enterectomy is a serious procedure. Even if we deduct five deaths from peritonitis due to the escape of the contents of the intestine into the peritoneal cavity from the faulty application of the sutures, which were, as a rule, composed of catgut, perfect operations afford a mortality of 19.35 per cent., as against 5 per cent. for Dupuytren's method. Hence, we think that the procedure should be reserved, first, for the more simple cases in which compression, cauterization, the enterotome, and autoplasty have failed; secondly, for cases of great destruction of the intestinal wall, with extensive prolapse of the mucous membrane, and with or without invagination of the upper portion of the gut; and, thirdly, for the cases in which the ends of the intestine are so disposed that, even after the destruction of the éperon, there could be no reestablishment of the natural course of the feces, as would happen if the lower end of the gut were placed above the upper end, if the two segments crossed each other at a right angle, or if there were a notable difference in the calibre of the two ends of the intestine.

THE HOT WATER MANIA.

THE hot water drinking mania, is one of those periodical sanitary epidemics, which, like certain moral epidemics, now and then rage through this country. The secular newspapers have taken it up, and elaborate editorials indicate the interest which the general public has manifested in this supposed new remedy. The persistence of the mania is a proof of the vitality of the system. The epidemic had long since spent its force, if its energy had not been recruited from the aggressive enthusiasm of new converts and disciples.

At the risk of chilling the spirits of hot water disciples and advocates, we are compelled to maintain that the method is not new. It is always an ungracious task to temper enthusiasm and to substitute a sober realism for the free flights of the ardent imagination, but we are restrained by our duty as medical journalists, to the domain of scientific verity. The use of hot water as a beverage, had its real origin in the method of stomach irrigation inaugurated several years ago by our German colleagues, as a remedy for chronic gastric catarrh. An ingenious and pseudo-scientific New York empiric, bethought himself of hot water drinking as a substitute for hot water irrigation. But Dr. Sangrado had preceded the modern empiric in the hot water practice. In the claim for priority of discovery, we hold that the patron of *Gil Blas*, is entitled to the honors, for did not the system of Sangrado consist in bleeding *ad deliquum animi*, and copious libations of warm water? This interesting historical question settled, we can now proceed to determine the real value of the practice.

—"All the water in the ocean
Can never turn a swan's black legs to white,"

is a saying of Shakespeare; so no amount of mere assertion can prove the value of hot water as a remedy. Sangrado was besought by his pupil Gil Blas to give up a practice which had proved so deadly, but this great medical philosopher, like so many of his ilk in our day retorted "have I not written a book?" which, as it was devoted to proving the value of the system, must not be disgraced by a change of opinion on the part of its author. Surely it is "the irony of fate," to have hot water revived as a remedy, by modern science.

Hot water serves several purposes: it is a means of applying heat to the interior of the body, for a well-instructed patient may drink water at 120° F. The effect of the heat is to dilate the stomach vessels, and thus increase the blood-supply to the gastric glands. An increase of functional activity is thereby induced. The reflex effect of the increased heat is manifest in a considerable stimulation of the solar plexus, the organs of vegetative life, and the circulatory system. The result of such stimulation must necessarily be a widespread increase of functional activity.

Large draughts of hot water act mechanically by dislodging the mucus adherent to the mucous membrane, by dissolving the alimentary refuse, and by washing into the circulation soluble constituents not disposed of in the ordinary process of digestion. The result of this is to increase the primary assimilation in an effective way. To a less

extent, draughts of hot water, therefore, wash out the stomach, and prepare the organ for better work, as irrigation does.

The picture has its sombre side. Water drinking, though the water be hot, is not without its drawbacks. There are those who believe that too much water is an impossibility. The late Dr. John F. Meigs was one of those—an apostle of water-drinking—and he has had many followers. Even so good a thing as water may be abused. Too much water taken during the progress of digestion, may so far dilute the gastric juice as to render it unequal to its proper work. The digestive process being thus weakened, a condition of anæmia results. For the purposes indicated above, hot water should be taken either before digestion has begun, or after it is completed. In the use of this agent, as of all other therapeutical remedies, the true principle is to adapt the remedy to the conditions present. Hence, it follows that each case must be studied by and of itself, and hot water given or withheld, according to the state of the stomach, or of the general system.

HOSPITAL TRAINED NURSES.

FROM all sides comes testimony in favor of this comparatively recent system of training nurses. Few physicians in active practice have failed to share its advantages. In place of the ignorant, garrulous, obtrusive, yet inefficient, and often filthy crone of fifteen years ago, we meet in the sick-room, the quiet, intelligent, refined, and helpful woman, whose presence is a pleasure and comfort to the physician as well as to his patient.

It is evident, too, that this new field of operation for women has increased the opportunities of the better class for earning a living under circumstances which are not lowering to self-respect or dignity, or inconsistent with that refinement and intelligence which are woman's most effective adornments. The companion of ladies, it is necessary that she herself should have ladylike attributes, and the feeling that the possession of these, and the qualifications that make her an efficient nurse, are necessary to success, tend to increase both. At the same time training does not exclude from the ranks girls of humbler origin and more limited advantages, who are nevertheless teachable and susceptible of refinement.

Another advantage of the system of training schools for nurses accrues to the patients in the hospitals, in connection with which the schools are established. To these the training school is a great boon. The old-time hospital nurse was worse than the private nurse of the same period; for the patient of the latter was, as a rule, at least protected from

cruelty and generally from positive neglect. A catalogue of the discomforts, and even injuries sustained by hospital patients, due to the neglect and cruelty of their attendants would be heartrending. Especially is this the case where pauper or convict help is employed for this purpose. We are quite sure that the supply would not exceed the demand if every general hospital of any size had connected with it a training school whose pupils should take the place of the illy, but still sufficiently, paid—when their qualifications are considered—nurses of to-day.

It has been suggested that similar schools should be established for males. But we doubt whether they would be successful. Woman possesses naturally many of the qualifications for nursing, and the teaching and example of years cannot give them to men. On the other hand, men of the required intelligence are not likely to be found ready to submit to the regulations and to take the time necessary to secure the proper training.

In this connection, we may be permitted to say a word in relation to nurse directories, of which the two most notable examples exist in Boston and Philadelphia. The advantages of these can only be appreciated by those who have gone through the experience of getting a nurse under the old and new systems, an hour or two sufficing to obtain a competent nurse by the latter, when by the former a laborious search, extending through an entire day, often resulted in securing an unsatisfactory substitute.

The Boston Directory is an admirable success, resulting last year, we are informed, in a profit of \$1200, which was turned over to the Boston Medical Library Association. But from what we can learn, while the Philadelphia Directory is a success in most respects, the financial exhibit is not so satisfactory. We fear this is largely due to the fact that some of the most prominent physicians in Philadelphia are in the habit of sending their patients, to whom the trifling expense would be no consideration, not to the Directory, but to the house where the nurse they desire to employ happens then to be engaged. The nurse directory in every city is so great a convenience to physicians, patients, and nurses that it should have the benefit of their entire and unconditional support.

GOVERNMENT PATRONAGE OF MEDICAL INSTITUTIONS.

THOSE restless utilitarians who seek in State supervision of medical affairs the ultimate good, will be enlightened as to the tendency of such interference by watching some proposed legislation in the present Congress. One scheme is to establish a great medical university to teach all the methods of the so-

called "schools." The most recent proposition is to compel the Army Medical Examining Board to accept the creeds of all comers, and to make no distinction between physicians and charlatans. The next step will be to constitute a board of Homœopathic examining surgeons to do justice to their system, for, with what grace can the present boards, composed of "old-school" surgeons, decide on the merits of "new-school" candidates? The innovation at the University of Michigan, which gave a department to homœopathic practice, does not satisfy the Eclectics, and they demand, and doubtless will soon receive, some kind of recognition of their "claims."

Those gentlemen of the profession who wish a State Board of Examiners, who alone shall have power to grant licenses, like the *Saats-Examen* of Germany, should make up their minds to a mixed commission of a political complexion, varying with the changing fortunes of political parties. It will be a sad day for our medical institutions when places in them shall be the prey of political rivalry. It is wiser to reform ourselves—to improve our methods by our own machinery, and to increase our attainments by the natural evolution of our own powers.

OUR attention has recently been called to a form of medical advertising, which has grown out of the introduction of the telephone into general use. The telephone exchanges supply their patrons with printed lists of their subscribers, and some of the more enterprising of them have their lists arranged according to trades, as well as alphabetically, and then, with a view of bringing more grist to their mill, they have added an advertising sheet for those of their patrons who desire, for a consideration, to bring their wares more prominently to the attention of the public.

We have recently seen the pamphlet list of a Western exchange, the last page of the cover of which is entirely devoted to the cards of a few of the more "enterprising" doctors of the town, who thus conspicuously advertise their address and telephone number. An examination of this list shows it to be made up of a motley crew. We find the names of 2 magnetics, 1 eclectic, 17 regulars, 5 homœopaths, and 1 botanic, intermingled, and without any mark by which the public can distinguish the peculiar methods of practice of each.

This is a new outcropping of the trade spirit, and we are glad to learn that the Polk County (Iowa) Medical Society has formally resolved that this method of advertising "is not conducive to the best interests of the profession"—indeed they might have said it is injurious to the profession's best interests. It is contrary to the spirit of the Code of

Ethics, and directly lowers the profession to a trade level.

We trust that wherever this new form of advertising has grown up, the profession will promptly condemn it in unmistakable language.

REVIEWS.

THE DIAGNOSIS AND TREATMENT OF THE DISEASES OF THE EAR. BY OREN D. POMEROY, M.D., Surgeon to the Manhattan Eye and Ear Hospital, etc. 8vo. pp. 392. New York: Bermingham & Co., 1883.

THIS book belongs to that class of works on ear disease which appears to be growing fashionable, viz., one in which the authors, for there are already several in the field, seem to think that anatomy and physiology can be dispensed with. This is all the more surprising and deplorable because the books are addressed not to specialists, who may fairly be presumed to know the minute anatomy and physiology of the ear, but to the general practitioner and the student, who presumably are not very familiar with this abstruse subject. Hence these books, at best, constitute what may be termed second volumes of a work in which the first volumes, which should be on anatomy and physiology, are wanting.

They are too anticipatory in arrangement, and partake of the unfortunate nature of the method of medical instruction which hurries the medical student from his anatomy and elementary branches to the clinic-room and the hospital, to learn to treat pneumonia and hip-joint disease, before he knows the structure of the lung or the anatomy of the acetabulum.

This book contains many pleasant allusions to the work of the author's colleagues in this specialty, and ample justice having been done in this respect, the author has brought his book "down to date" in its encyclopædic information upon treatment. Many valuable and important facts have been brought out, as a reference to Holt's method of inflation of the tympana, by puffing out the cheeks instead of swallowing water at the moment of inflation; it seems superior to Politzer's method in our hands. It is with pleasure we note also that the connection, at least clinically, between progressive locomotor ataxia and deafness has been laid before the reader. It is to be regretted that there has been some very careless proof-reading, but it is to be hoped that the errors will soon be corrigible in a new edition of the work. We refer to such mistakes in spelling as "Brunston" for Brunton, "Bertholet" for Bertolet, "Séiglè" for Siegle, "Botticher" for Boetcher, "Lascource" for Lasource, "Greene" for Green, "Rholand" for Roland, "Wein" for Wien, among proper names, while among ordinary words, "acousticus" often appears for acusticus, even in the table of contents, and douche appears as "douché." On pp. 39 and 40 there occurs the following quotation from Politzer's *Lehrbuch*: "The inclination of the drum-membrane in children has hitherto been described as nearly horizontal. By means of numerous measurements Dr. J. Pollak has shown this view to be erroneous, there being no perceptible difference in the inclination of this membrane in infancy and adult life." To this statement exception must be taken. If anyone will ex-

amine a preparation of the skull of an infant in which the membrana tympani is retained *in situ*, he will observe that the membrane conforms to the curve of the base of the skull, and is more nearly horizontal than otherwise, and much more so than in the adult or large child's skull. This fact has so much clinical importance, both in examinations and in operations on the membrane, in aiding us to decide the extent or absence of abnormal retraction, and the point in the membrane at which to make a proper incision, that it is necessary to question the accuracy of Pollak's observation.

We regret to find that many of the figures in the book, intended to represent normal and pathological conditions of the membrana tympani, as Figs. 17, 46, 68, 69, and 70, are extremely bad, but it is with pleasure we note the goodness of such figures as Nos. 20, 21, and 22, illustrative of perichondritis auriculæ.

The binding and the paper of the book are handsome, but the print is a little too fine and too close to be easy for reading, though, of course, it makes the book compact, and aids the author to make the information contained in its numerous pages, very copious. The work, as a whole, is certainly a valuable addition to the literature pertaining to the diagnosis and treatment of diseases of the ear.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Volume Tenth. 8vo. pp. xxii. 307. Philadelphia: 1882.

THE tenth volume of the *Transactions of the Pathological Society of Philadelphia* contains, like most other volumes of the same character, a great deal that is interesting intermingled with much that is merely sketchy, or without interest apart from the specimens described. The arrangement of the matter in the volume before us is admirable, the specimens and their descriptions, or the papers accompanying their presentation being carefully classified according to location. In this respect the *Transactions* would serve as an admirable catalogue of the specimens in the museum of the Society.

Volumes I. to IX. of this series, we are informed, can be purchased for fifty cents a volume, upon application to the Treasurer, No. 1423 Walnut Street, Philadelphia.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, January 8, 1884.

THE PRESIDENT, ROBERT F. WEIR, M.D., IN THE CHAIR.

MULTIPLE INCISIONS FOR CICATRICAL CONTRACTION.

DR. A. C. POST presented a boy who had received an injury of the palmar surface of the ring finger of the left hand, and as a result the finger was bent at an angle of about seventy or eighty degrees. He operated for the deformity by making a series of transverse incisions, probably ten or twelve in number, and subsequently dressing the wounds with subnitrate of bismuth, and applying a metallic splint. The case illustrated the benefit of multiple instead of single incisions.

COMPOUND FRACTURE OF THE HUMERUS, INVOLVING THE SHOULDER-JOINT.

DR. L. A. STIMSON presented a patient, a man thirty-five years of age, who fell two stories, striking his arm while on the way down upon a railing, and producing a compound fracture of the upper end of the humerus, communicating largely with the shoulder-joint, the wound extending from the coracoid process across the upper part of the arm. The wound was washed with a bichloride solution, one to two thousand, partly closed by sutures, two drainage-tubes were inserted, and antiseptic gauze applied. The interest in the case was confined to the plaster dressing which was used. It was a combination of plaster dressing upon the arm and a plaster jacket upon the body, united by three iron cross-pieces, which held them so firmly that the patient could be moved or turned in any direction without producing pain. Rapid recovery took place with a movable joint.

SPONTANEOUS DISLOCATION OF THE HIP-JOINT, OCCURRING IN THE COURSE OF ACUTE ARTICULAR RHEUMATISM.

DR. STIMSON also presented a patient, a woman thirty-seven years of age, who had an attack of rheumatism in December, 1882. The history of the attack was obscure, but the patient said that many joints were involved, that she remained ill for a long time, and that the deformity occurred as early, at least, as the following April. She finally came to Bellevue Hospital last summer, where Dr. Stimson saw her first in the month of September, and recognized a dislocation of the right hip-joint, backwards, upon the ilium. The interest of the case was partly in the rarity of the occurrence, and also the facility with which the lesion may be overlooked. The subject has been recently written upon by French surgeons, and he had nothing to add except to say that the symptom of sudden cessation of pain sometimes noted at the moment the dislocation occurs, does not appear to have been present in this case.

EXSECTION OF THE WRIST-JOINT.

DR. A. G. GERSTER presented a patient upon whom he performed exsection of the wrist-joint November 5, 1883. The patient, a woman thirty years old, had had a severe attack of acute articular rheumatism, which involved nearly every joint of the body, all of which regained their functional ability except the wrist-joint, which remained swollen, hot, and stiff. The patient was treated in the medical wards by the use of internal remedies, counter-irritation and local applications, but without much improvement, and finally she was transferred to the surgical side, where Dr. Gerster found very extensive agglutination of the flexor and extensor tendons in their sheaths, and the hand resembled more a flipper than a hand. With reference to the joint proper, he found evidence of disease of the radio-carpal articulation. The condition of the carpus proper, however, made him anticipate that the carpal joint proper was not involved. On the inner side, moreover, at a point corresponding to the radial artery, a reddened spot appeared on the skin, showing that perforation was imminent. He proposed to the patient to have the joint examined, but if the condition were such as demanded it, finally to perform exsection. She consented to the operation, and Dr. Gerster made a lateral incision upon

the ulnar side, wishing first to remove the ulna and thereby increase the facility with which the radius could be removed. In other words, he performed Lister's operation. Having exsected the carpal ends of the radius and ulna, the wound was closed and capillary drainage established by the introduction of a few strands of catgut. A bichloride solution was applied, and sufficient support was given by antiseptic dressings to obviate the necessity of using a splint. No fever whatever followed the operation, and on the tenth day, when the dressing was changed, it was found that primary union of the wound had taken place. The small strips of iodoform gauze placed immediately over the wound were simply colored with blood, but the remainder of the dressing was perfectly clean. Active and passive motion was begun on the second day after removal of the dressings, and had been continued. The flail-like mobility was considerable after the operation, but this has been improved, and the patient is now able to extend and flex the hand without support, and the mobility of the fingers has also improved very much in consequence of careful orthopaedic treatment.

Dr. Gerster expected that she would have a tolerably useful hand. The carpal ends of the radius and ulna to a distance of two inches were removed, and the rest of the carpus was allowed to remain. The ends of the radius and ulna which were removed were devoid of cartilage, and the joint contained a small quantity of sero-cheesy pus. The capsule of the joint was infiltrated and thickened, the inner aspect of it was red, giving the peculiar velvety appearance seen in joint disease, and the perforation mentioned as being imminent on the volar side of the joint was found to be due to the burrowing of pus. No examination was made for the tubercle bacillus.

DR. POST thought it a very unusual occurrence for such extensive disease of the joint to occur without involving the carpus.

REMOVAL OF THE SUPERIOR MAXILLARY DIVISION OF THE FIFTH NERVE AND MECKEL'S GANGLION BY CARNOCHAN'S OPERATION.

DR. J. W. HOWE presented a patient with the following history: The patient's name is Freidman, *et. 45*, and a native of Hungary. Twelve years ago, without any appreciable cause, she felt a pain in the region of the lower bicuspid tooth on the right side. The pain gradually increased in frequency and in intensity. It was usually aggravated by exposure to cold and heat. The paroxysms continued up to within three years of her admission to the hospital, varying little in severity. The inferior maxillary was first involved. Three years ago pain appeared in the upper division of the fifth. It started on the slightest provocation. Mastication became so painful that nothing but liquid food could be taken. Laughing, sneezing, swallowing, crying, all occasioned exquisite pain. For a year previous to the operation the pain was almost continuous, and there were occasional exacerbations of such severity as to produce delirium. Nourishment could only be taken in small quantities, and as a consequence she became emaciated and weak. Dr. Henry Schweig, under whose care she is at this time, informs me that he administered morphine hypodermically, and endermically, by the mouth, with and without atropia, without any alleviation.

of the pain. He could not administer more than fifteen minims without aggravating the mental trouble, so that it was impossible to give heroic doses of the drug. He also tried aconitia, without any effect. At my request he also tried hypodermics of strychnia and hypodermics of atropine, without avail. The galvanic current was also tried for four weeks, with no effect. The only drug from which an appreciable effect could be obtained was nitroglycerine. This medicine relieved the pain for two or three weeks and then failed like the other remedies. The Doctor then brought her to St. Francis Hospital, and I performed Carnochan's operation on May 29, 1883, removing the superior maxillary division of the fifth and Meckel's ganglion. For three days after the operation the patient slept well, and there was little or no pain excepting that which naturally results from the operation. At the end of that time she had severe pain in the region of the inferior dental, and a spasm of the muscles of the affected side. This disappeared and was replaced by a dull pain in the wound and in the ear. A drainage-tube was inserted, and through this a solution of chloral, ten grains to the ounce, was injected twice each day. This relieved the pain. She left the hospital on June 11th, almost entirely free from pain, and able to eat and sleep and live comfortably. It is now seven months since the operation, she has gained in weight and strength, and is free from pain unless exposed to very sudden changes of temperature. She eats and drinks with comfort, and considers herself greatly improved by the operation. Notwithstanding the good result, I am not in favor of the operation, as I think further experiments with medicine could gain the same result that I attained; more especially by resorting to the hypodermic injection of strychnia.

DOUBLE GENU-VALGUM OSTEOTOMY BY MCEWEN'S METHOD.

DR. W. T. BULL presented a patient with the following history:

J. H. H., æt. 16, errand boy; admitted August 15, 1883. For the past two years, patient states, both of his knees have been growing weaker; knocking against each other while he was walking or standing. This condition has grown much worse during the past four months. Family history good. General health always good.

When patient stands with his knees in apposition, and with his feet as closely approximated as possible, the distance between the internal malleoli equals eight and a quarter inches. When patient lies on his back, this distance equals nine and a quarter inches. Knee-joints are perfectly normal; internal condyle elongated.

Aug. 24.—At 2.30 P.M. patient etherized, Drs. Bull and Little operating. Incision was made on inner side of the right thigh, through the skin and underlying tissues down to the bone, according to McEwen's method. Bone was then partly divided by chiselling, the remainder of the bone being fractured by manual force. The small hemorrhage was controlled by pressure. The limb being forcibly straightened, the following dressing was applied: Small peat-bag was placed over wound, and a full Lister dressing applied from the ankle to the gluteal fold; over this was placed a loose plaster-of-Paris splint.

During operation, a stream of a solution of salicylic

acid was constantly projected over wound. Before applying the dressing, wound was cleansed with a solution of hydrargyri bichloridum (one to one thousand). Same operation was then performed on the left leg, and a similar dressing applied.

7 P.M.—Patient made good recovery from ether; complains of considerable pain in left foot. Pain increased, and became so severe by 12 M. that splint was cut open and limb held in position by properly adjusted sand-bags.

R.—Magendie, m.v. By hypodermic.

Aug. 25.—Pain continues. In both feet there is a sensation of numbness, and well-marked signs of retarded circulation. Morning, temperature 99.2°, pulse 96. At 12 M. both dressings were removed, and fresh Lister dressings were immediately applied. Long side-splints, reaching from axilla to the ankle were applied. Circulation began to improve, and in a few hours was apparently normal. Temperature 100.8°, pulse 105. General condition of patient very good.

26th.—During the following seven days patient had a slight recurring rise of temperature, with a pulse varying from 90 to 104. Temperature normal on ninth day, and continued so during the remainder of the treatment.

On Sept. 11 dressings removed. Wounds of original incisions nearly healed. Simple dressing was applied, with long side splints.

14th.—Plaster-of-Paris splint applied from toes to the groin of each leg.

On October 23d splints were removed. Right leg was found to be in excellent position; there was some slight tendency to a bending inwards of the left knee. Rubber bandages were then placed around each knee-joint, and patient allowed to walk about.

Dec. 15.—The bowing inwards of the left knee is almost entirely rectified by a brace, which extends from the sole of the foot to the upper portion of thigh, with a hinge-joint at the knee.

SUB-TROCHANTERIC OSTEOTOMY OF THE NECK OF THE FEMUR FOR CONTRACTURE AND ANCHYLOSIS OF THE HIP.

DR. W. T. BULL presented a patient showing the result of the above operation. Mary C., ten years of age, born in the United States, was admitted to St. Luke's Hospital, September 14, 1883. She was healthy until three and a half years old; then without any injury she commenced to develop hip-joint disease of left limb. Treated for five years at Hospital for Ruptured and Crippled. Patient left that hospital when eight and a half years old, with limb in good position. Very soon afterwards contracture of hip-joint set in, and increased rapidly during the past six months. On admission, left thigh is flexed and adducted, so that patella is situated two and a quarter inches above opposite patella and outside the median line of right thigh. When patient lies with back on a table, thigh is ankylosed, so as to form nearly a right angle with longitudinal axis of body. Except for a very slight flexion of femur, movements at hip are wanting without ether. Under ether small amount of motion is possible when standing erect, toes of left foot are about five inches from ground, and heel fully a foot. In walking patient places the toes of left limb only to the

floor, and locomotion is performed in a hopping style. Pelvis is very markedly tilted downwards on left side, and the lateral curvature of the spine is extreme. Motion in knee-joint is perfectly normal.

Head of trochanter on left side is one and a half inches above Nélaton's line. Muscular atrophy of left thigh shows a diminution in size of two inches.

October 4.—Tenotomy performed on gracilis and adductor tendons. Open division of fascia and tendons below sup. spinous process of ilium; femur divided just below trochanter margin and wedge removed, the base of wedge measuring a half inch. Lister dressing with long side-splint applied. Extension applied.

October 26.—Wound of femur entirely healed. Other wounds nearly closed.

November 9.—Union of femur solid. Left leg shortened two and a quarter inches.

TRAUMATIC ANEURISM OF THE VERTEBRAL ARTERY.

THE PRESIDENT presented a patient who had had the above affection, and remarked that there were only ten cases upon record. Of thirty-two cases of wound of the artery collected by Fischer, nine eventuated in aneurism. For the injuries to this vessel, the carotid was tied twelve times, with an unfavorable result. In the aneurismal cases, the carotid artery was tied five times, the patients all dying. Once it was exposed, but not tied, and that patient recovered; but why is not clearly seen. In two cases the aneurism was cured by cutting down, opening the sac, and plugging the opening in the artery. In the patient presented this evening, the aneurism was cured by digital compression. The man was twenty-eight years of age, and on the eighth of December was struck with a knife, half an inch below the lobe of the right ear, just behind the jaw, his opponent standing in front of him and holding the weapon in his left hand. Considerable hemorrhage took place, though when the man entered the hospital he was not very much exsanguinated; and the bleeding having ceased, an iodoform pad was simply placed over the wound, which was not disturbed until the tenth day, when the dressings were removed, and the wound found healed. Forty-eight hours after the receipt of the wound, the patient experienced a peculiar sensation in the head, and sudden paralysis developed, involving the opposite arm, from which he has not yet entirely recovered; although there has, in this respect, recently been marked improvement. After removal of the dressings, a slight swelling at the posterior margin of the sterno-cleido-mastoid muscle, and just below the mastoid process, was observed. This tumor had a feeble pulsation, which gradually increased up to the beginning of last week, when the signs of an aneurism were strongly marked over a space two inches in diameter, and a bruit was heard. The diagnosis was made positive by pressure on the cardiac artery. When this was made upon a level with the thyroid cartilage, pulsations in the swelling were not arrested; but when pressure was made on a level with the tubercle of the sixth cervical vertebra pulsation in the tumor at once ceased; and when the pressure was removed, it immediately returned in full force again. The diagnosis was in this way made clear, and was corroborated by his colleague, Dr. Markoe. The question was, what should be done? The best

suggestions which he had seen upon this subject were those by Holmes, in his article on aneurism, written in 1873. Dr. Weir finally determined, before opening the sac and plugging it (which had afforded the best outcome of treatment), first to apply ice, and, if that failed, to resort to digital compression; because he had found that pressure upwards and forwards upon the lower portion of the tumor arrested pulsation. He, therefore, secured a relay of medical students as assistants, and last Thursday—after having used ice for some days without any change in the tumor—he began, at twelve o'clock, the treatment by digital compression. At two o'clock the pulsations were almost arrested, and at three o'clock they had entirely ceased; but the pressure was kept up lightly until seven o'clock. Since that time there had been no trouble in this region, and the tumor has rapidly subsided. No cerebral trouble ensued during the treatment.

DR. L. A. STIMSON said he could add one case to the list of unsuccessful ligatures of the common carotid artery for wounds of the vertebral artery. The patient was at Bellevue Hospital. He had been wounded by a pistol ball, which entered the mouth, passed into the left side of the pharynx, and made its exit at the back of the neck. There had been a profuse hemorrhage, but when he saw the case bleeding had ceased. The hemorrhage recurred the next day, and the common carotid was tied by the house surgeon. The patient died within a few hours afterwards. At the autopsy, it was found that the ball had passed between the atlas and the skull, and had divided the vertebral artery.

DR. W. S. HALSTED referred to a case which he saw at the Chambers Street Hospital. It was one in which the patient had received a stab with a knife between the atlas and the occiput, producing paralysis on the opposite side and of the muscles supplied by the spinal accessory nerve upon the same side, and the vertebral artery was not injured.

REMOVAL OF LARGE URETHRAL CALCULI BY INCISION THROUGH THE PERINEUM; WEIGHT OF CALCULI, FOUR HUNDRED AND FOURTEEN GRAINS.

DR. JOSEPH W. HOWE presented specimens with the following history: An Italian, Stephen Canziani, *æt.* 31, was admitted to the surgical division of St. Francis Hospital on December 31, 1883, with the following history: At the age of thirteen he was troubled with stone in the bladder, which was removed by an Italian surgeon through an incision in the perineum. The wound in the perineum only partially healed, and a fistula remained, through which the urine escaped for several months. Some time afterwards the patient passed a small calculus through this opening. The exact time of this occurrence the patient does not remember. Shortly after the expulsion of this stone, the opening in the perineum closed, and he had no further trouble up to within five years of the date of entrance to the hospital. He then noticed a hard mass in the perineum, which gave him some pain on pressure, as well as pain on micturition. The mass grew slowly, with an increase in the pain. It was easily moved from side to side. A friend advised him to poultice the swelling in the perineum. After following this advice for a few weeks, the integument ulcerated, and a calculus the size of a pigeon's egg was extruded. The patient likened this mass to a piece

of hard rubber. From the passage of this stone the patient experienced great relief, and he had no special trouble for four years, when he noticed two protuberances in the perineum, which gave him pain on pressure as well as pain on micturition. The pain during the passage of the urine was of a burning character, and lasted some time after the urine was voided. There was also considerable difficulty in emptying the bladder. These prominences continued to increase until the patient's admission to St. Francis Hospital.

On examination I found two prominent enlargements occupying the median line of the perineum. They were both easily moved, or rather the tube in which they were contained readily moved from side to side. The upper tumor was about half an inch from the lower and larger one below. I could, however, draw them together, and by the rough grating make out their character. The upper end of the first calculus was situated about three inches and a half from the meatus, the second and larger one extended down to within half an inch of the anus. The patient did not seem to suffer much pain when they were handled.

On Saturday last, the 5th, the patient was etherized, the meatus, which was very narrow, was incised so as to admit a No. 18 American sound. Its passage down the urethra was unobstructed until the first calculus was reached. A No. 5 was then introduced, but failed to pass the obstruction. An incision was then made in the median line of the perineum, commencing at the middle of the upper calculus, at the upper boundary of the perineum, and extended down to within three-quarters of an inch of the anus. The upper stone was then pushed into the opening and extruded; the lower one was then removed by completing the incision through the perineal tissues. A further examination showed that the urethra was very much dilated from the lower calculus to the bladder.

I first passed one finger in through the neck and discovered another calculus inside the bladder. I introduced a second finger along with the first one, stretching the parts easily. A stone-forceps was then introduced, and the cystic calculus removed. The calculus which occupied the anterior portion of the urethra was found to weigh one hundred and thirty-five grains (Troy). It measured an inch and a half in length and three-quarters of an inch in its broadest diameter. The lower calculus weighs two hundred and seventy-nine grains, and is an inch and three-quarters in length and an inch and a half in its broadest diameter. The calculus taken from the bladder weighs three hundred and ninety-five grains, is two inches in length and an inch and an eighth in its transverse diameter. The patient's temperature last night was 99.5°, and he is so far doing well.

DR. A. C. POST said there was a case on record in which a stone passed spontaneously from the female urethra, and described to be as large as a goose egg. He thought a number of cases of this kind had occurred in both sexes, in which stones of very considerable size had passed through the dilated urethra. He was not able to give the particulars of a number of cases occurring in the practice of his son in Beyrout, but his impression was that in some of them the calculi were larger than that presented by Dr. Howe.

The Society then proceeded to the transaction of miscellaneous business.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, January 8, 1884.

THE PRESIDENT, WILLIAM J. MORTON, M.D., IN THE CHAIR.

DR. RALPH L. PARSONS read a paper on

DETENTION IN ASYLUMS.

He spoke first of the question, whether sane persons were not often improperly or unjustly detained in asylums for the insane; and secondly, whether many uncured and incurable patients who were now methodically detained in asylums might not advantageously be returned to their relatives, or placed in the care of private families under State supervision.

It was assumed, in the first instance, that the detention of patients after recovery had taken place, for a longer time than might be required, was quite possible, and even probable, in some instances. But he claimed that such detentions were not usually of serious import to the patient; that, on the other hand, too early discharge might be more injurious. It was also admitted that maliciously unjustifiable detentions were quite possible, as any other sort of injustice is possible on the part of persons holding positions of power and responsibility. But reasons were urged by Dr. Parsons in support of the belief that such malicious detentions were at least very rare; that sentiments of honor and professional pride were strong deterrents, to say nothing of the great danger of detection in the commission of the wrong, and the ease with which patients who were decidedly insane obtained their engorgement through the intervention of the courts.

Cogent reasons were given why various classes of convalescents ought to remain under asylum care for a period of time after they appeared to be well; as, for instance, when they would be immediately subjected to the exciting cause of their insanity, on their return; when the progress toward convalescence had been characterized by relapses, or when dangerous delusions had been entertained and had faded away so gradually that there were difficulties in judging whether they had passed away entirely.

But, on the other hand, the discharge of certain uncured curables before they were well was advised, as when, after making a certain degree of improvement, this improvement stopped, and the patient seemed to retrograde. It might be safe and highly advisable to discharge some of these patients before they were well.

The major part of the paper was devoted, however, to an advocacy of the discharge from the asylum of harmless incurables and their return to the care of their friends, or placing them with ordinary families as boarders and in some sort as members of the families. It was claimed by the reader that, however comfortable and happy such patients may appear to be in large asylums, there are many causes of annoyance and discomfort that would not be experienced in ordinary family life; that notwithstanding the fine buildings they occupy, and their freedom from care, they are still prisoners and exposed to many disagreeable associations and associates.

Quotations were made from Dr. Bucknill and from Dr. Maudsley, strongly supporting these views.

The question was then considered, what classes of incurables might safely and with benefit be released from asylum restraints? since, in the case of a great majority of such patients moderate cost of maintenance would be essential, those only would be adopted who were quiet and orderly and would require no especial attendance or supervision. Habits of industry would be favorable.

Whether such patients would do better with their relatives or with strangers would depend on the circumstances of the family, the state of health, the surroundings, the feelings or notions of the patients, etc. It would be found, however, that many patients who would not do well with their own kindred would be happy, contented, and useful with congenial strangers. It would be impossible for the patient to resume his former position and influence in his own family, and hence he would be subjected to irritating restrictions and annoyances there.

As a preliminary measure, a system of legalized furloughs was advocated, to the end that at first the patient might still be under legal restrictions, and easily returned to the asylum if the trial at large should prove a failure.

Properly constituted authorities should make the selection of patients for the trial, with the assistance and under the advice of the asylum superintendent. The families in which the patients should be placed should be selected with great care. While at first there might be found very few suitable families who would assume the charge, it was thought that, when a beginning had been made, plenty of suitable homes would be offered. Reference was made to the multitude of respectable and responsible families who take summer boarders for a moderate compensation, and the probability that some of these families would prefer one or two permanent patient boarders to a number of sane boarders for a short season during the busiest portion of the year. A suitable system of visitation and of reports was advocated. The paper closed with the following summary of conclusions, to wit:

1. That inasmuch as many recoveries take place in asylums for the insane, it is to be expected that some convalescent patients may at any time be found in the wards.

2. That while, possibly, now and then a convalescent patient may be detained on probation an unnecessary period of time, such cases are not of frequent occurrence, nor important in their consequences when they happen, and that when they do occur the detention is very rarely indeed through criminal intent.

3. That many harmless incurables are unnecessarily detained in asylums for the insane; that these incurables would be happier in the enjoyment of ordinary family life and associations; and that systematic efforts should be made to secure their engorgement, and their establishment under family care.

4. That under certain circumstances curable patients should be removed from asylum restraint and associations while yet uncured.

Owing to the lateness of the hour, the discussion upon Dr. Parson's paper was postponed until the next meeting of the Society.

CORRESPONDENCE.

MIDZU AME.

To the Editor of THE MEDICAL NEWS.

SIR: The inquiries received from physicians and druggists in the United States concerning midzu ame, and the attention that has of late been called to it by occasional articles in the medical press, lead me to think that a brief note on the subject may not be without interest to your readers.

Midzu ame is an extract of barley-malt and rice, in the proportion of about one part in ten, and hence may be termed a malted extract of rice. It is prepared by steaming the rice (a variety very rich in gluten called *mochi-goine*) in perforated wooden boxes until fairly soft, when it is crushed and thoroughly mixed with the malt. After standing about twelve hours it is placed in hempen bags and the contained liquid forced out by strong pressure. This is then slowly evaporated to the consistence of a thick syrup, and, when ready for use, has a pale amber or amber-brown color, according to the care observed and amount of heat employed in its preparation.

Midzu ame has long been used by the Japanese as an article of diet for the sick, but not until within the last six or seven years has it been regarded as possessing medicinal properties. It is now employed as a medicine under the following conditions:

1. In cases of indigestion arising from nervous exhaustion or infirmity.

2. As an adjuvant to other remedies in cases where food-medicines are required; e. g., with cod-liver oil emulsion, instead of barley-malt, in preparing the extractum malti ferrum, diluted with dialyzed iron, etc.

3. As a nutrient and restorative in some exhausting diseases. For this, a tablespoonful dissolved in hot water and added to a glass of rich milk makes a very nutritious and easily digested draught for the sick.

Very respectfully yours.

J. C. BERRY, M.D.

OKAYAMA, JAPAN, December 5, 1883.

NEWS ITEMS.

CINCINNATI.

(From our Special Correspondent.)

ARRANGEMENTS FOR THE SPRING COURSE have just been completed in both our Medical Colleges, and in both a new plan has been adopted. The didactic courses are to be recitative, instead of by the usual lecture-method. The plan appears to have many good features, and it is believed that by it the students will be stimulated to a better use of text-books, and at the same time acquire a better method of study than they would otherwise get. At the Medical College of Ohio, the Faculty have further decided to confine themselves entirely to clinical instruction, placing the didactic course in the hands of the adjuncts of the various departments.

THE COMMENCEMENT EXERCISES of the Miami College will occur Thursday evening, March 6th; those of the Ohio, Friday evening, March 7th.

A CASE OF SMALLPOX was discovered in the city last week. It is the first appearance of the disease for more than a year. The victim was a negro roustabout, who had contracted the disease in Louisville, where it has prevailed all winter. By the prompt action of the Board of Health, in sending the patient to the Pest-house, and vaccinating as many as possible of those with whom he had come in contact, no other cases have yet appeared. The Health Officer has also established a partial quarantine against Louisville. The railroads have been ordered to discontinue the transportation of rags, and officers have been stationed at the depots to inspect passengers and freight arriving from that source. It is said that the people of Louisville are much dissatisfied with such treatment, and advise that, if Cincinnati people are afraid of smallpox, they should vaccinate. But it has been only three years since the disease came to us from Louisville, and it then required nearly two years to free the city from it. During that time, too, the Health Board learned how difficult it is, in the absence of law, to enforce vaccination regulations, and for this reason they take the decisive steps referred to.

SCARLET FEVER.—A few cases of scarlet fever have also occurred. About two weeks ago, five or six inmates of the Children's Home were attacked at once. They were promptly removed, and further spread of the disease prevented.

A BILL TO REGULATE THE PRACTICE OF PHARMACY is now before the Legislature of Ohio. If passed, it will require that all pharmacists, whether graduates in pharmacy or not, be examined by a State board before being licensed to practice. It will not, however, govern those now in business. A petition urging the passage of the bill has been largely signed by physicians. Next in order should be a similar bill to regulate the practice of medicine.

THE PHILADELPHIA NEUROLOGICAL SOCIETY.—This new Society was organized last Monday evening. Its object, as expressed in its constitution, is to promote the study of Neurology in all its departments. The meeting was fully attended by those physicians of Philadelphia and vicinity who are specially interested in nervous and mental diseases.

The following officers were elected:

President.—Dr. S. Weir Mitchell.

Vice-Presidents.—Drs. C. K. Mills and T. N. Kerlin.

Secretary and Treasurer.—Dr. Jas. Hendrie Lloyd.

Council.—Drs. S. Preston Jones, Wharton Sinkler, and J. T. Eskridge.

SURGEON-GENERAL WALES.—The term of office of Medical Director P. S. Wales, as Surgeon-General of the Navy, by virtue of his office as Chief of the Bureau of Medicine and Surgery, expired last week. The name of his successor has not yet been announced.

DR. FRANK H. HAMILTON'S work on *Fractures and Dislocations* has recently had a sixth revision and translation into French at the hands of Dr. G. POINSOT.

THE ILLINOIS STATE BOARD OF HEALTH.—From the quarterly report of the Secretary of the Illinois State

Board of Health, we learn that during the quarter ending December 31, 1883, the Board issued certificates entitling to practise medicine under the Medical Practice Act to eighty-six graduates upon diplomas from legally chartered medical institutions in good standing, and nine to practitioners on length of practice in the State; making in all 553 practitioners of medicine admitted to practice in Illinois during the year 1883. During the same period, 163 applications have been refused, and eleven certificates have been revoked; thus directly reducing the number of practitioners by 174, through the enforcement of the provisions of the Medical Practice Act.

Among the causes for refusal to issue certificates were the following: Presenting diplomas of institutions not recognized by the Board as in good standing; unsatisfactory personal or professional antecedents, habits, or associations, warranting the charge of unprofessional and dishonorable conduct; intent to practise in an unprofessional and dishonorable manner, as by claiming to cure incurable maladies; to possess unusual skill, experience, or facilities; and similar claims involving deceit and fraud upon the public. The revocations of certificates were in all cases based upon charges of unprofessional and dishonorable conduct.

Seven certificates were issued to midwives upon the credentials of recognized schools of midwifery, and four upon examination by the Board. A total of fifty-one midwives have thus been admitted to practice during the year—twenty-five upon credentials, seven upon length of practice in the State, and nineteen upon examination. In all forty presented themselves for examination, of whom twenty-one were rejected.

BARNUM'S WHITE ELEPHANT.—Barnum's white elephant, which has arrived in London and has been lodged in the Zoölogical Gardens, has excited quite a warm controversy. Prof. Flower says that the pink patches on the animal are due to an absence of coloring pigment in his epidermis. Mr. Balmano Squire says the patches are due to a skin disease. Mr. Sanderson, Superintendent of the Government Elephant Department in Bengal, asserts that the elephant does not differ from hundreds belonging to the Commissariat of the value of £150 to £200.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending January 19, 1884, indicate that remittent fever and diphtheria have increased, and that pneumonia, tonsillitis, consumption, bronchitis, and neuralgia have decreased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending January 19, and since, at sixteen places, scarlet fever at eighteen places, and measles at thirteen places.

NOTES AND QUERIES.

THE METRIC SYSTEM.

To the Editor of THE MEDICAL NEWS.

SIR: Several letters have appeared in your columns discussing the relative merits of the metric and our present system in prescribing. Having been educated in a German university, I first studied the decimal system, but on commencing practice in a small town in Indiana, I found myself obliged to prescribe according to the old system, as the druggists neither understood the former, nor

had they the weights for dispensing. With this experience, I can safely assert that I consider the gramme system as far the simpler and easier of the two.

One of your correspondents justly observes that practitioners must get out of the way of thinking of doses in grains, etc., and accustom themselves to think of them in grammes and decimals of grammes. The Germans originally prescribed in grains, etc., traces of which you can even now see in their prescriptions; for example, in the following:

R.—Morph. muriat., 0.06 (gr. j).
Sacch. alb., 4.0 —M.
Divide in pulv. No. vj.

If the prescriber had never heard of the old system, he would probably have written as follows:

R.—Morph. muriat., 0.05
Sacch. alb., 4.0—M.
Divide in pulv. No. v.

which gives the same result, 0.05 of morphia, and is more in accordance with the principles of the decimal system.

Still, I do not think that this system will ever be universally adopted, until teaspoons, dessertspoons, wineglasses, etc., are abolished. Suppose the American Medical Association, or any other high medical authority, were to cause two standard dose-glasses to be made, each containing 50.0 and 100.0 respectively, and divided into ten and twenty equal parts respectively, each part (for convenience, I will call it "measure") would then contain 5.0, a trifle more than a teaspoonful. If these glasses were made in large quantities, they could be sold by the druggist for five cents, and dispensed with the prescription. Or graduated medicine bottles might be used, as now is the case in Great Britain. I will give two examples to illustrate my meaning. Suppose you wish to give, say twenty doses of sulphate of quinine, each containing 0.1. The prescription would read:

R.—Quin. sulph., 2.0 (0.1 \times 20).
Acid. sulphuric, dil., q. s.
Syr. limonis, 20.0
Aque. dest., q. s. ad 100.0 (5.0 \times 20).—M.
Sig.—One measure, in water, three times a day.

A second example:

R.—Potass. acetat., 10.0 (2.0 \times 5).
Sp. aether. nitrosi, 10.0 "
Infus. buchu, q. s. ad 250.0 (50.0 \times 5).—M.
Sig.—Ten measures, three times a day.

Here are five doses, each containing 2.0 potass. acetat., 2.0 sp. aether. nit., and 48.0 infus. buchu. It seems to me, nothing could be simpler, and it has the advantage of being mathematically accurate. The opponents of the system seem to have the wildest ideas of its complicity, as is shown by a prescription in THE MEDICAL NEWS of the 3d of November, 1883, p. 503. As a matter of fact, it is never necessary to make use of more than two decimal places, except in prescribing drugs with very small doses, as atropia, strychnia, etc.

The most illiterate citizen understands the decimal system when applied to dollars and cents. Is it then too much to ask that educated and scientific men, as physicians are supposed to be, should understand the same system when applied to weights and measures?

I believe the idea of graduated glasses is now being entertained in Berlin; but there is no reason why a liberal country like the United States, which has always shown itself foremost in the invention and adoption of improvements, should not take the first step, and set an example to the old world, in simplifying the present method of prescribing, and at the same time rendering it safer, more accurate, and scientific.

I am, sir, your obedient servant,

A. C. WILLIAMS, M.D.

CINCINNATI, O., January 26, 1884.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 21 TO JANUARY 28, 1884.

ALEXANDER, CHARLES T., *Major and Surgeon*.—So much of Par. 7, S. O. 211, September 14, 1883, as directs him to report in person to the Commanding General, Department of the Missouri, for duty, is revoked, and he will, upon the expiration of his present leave of absence, proceed to St. Louis, Mo., and assume duty as

Attending Surgeon and Examiner of Recruits in that city.—*Par. 7, S. O. 21, A. G. O.*, January 25, 1884.

ELBREY, FREDERICK W., *Captain and Assistant Surgeon*.—Present leave of absence extended six months.—*Par. 9, S. O. 24, A. G. O.*, January 25, 1884.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FROM OCTOBER 1 TO DECEMBER 31, 1883.

BAILHACHE, P. H., *Surgeon*.—Relieved from duty at Cape Charles quarantine station, October 13, 1883. Detailed as member of Board to examine candidates for promotion October 30, 1883. Granted leave of absence for thirty days, November 27, 1883.

HUTTON, W. H. H., *Surgeon*.—Granted leave of absence for twenty days, October 1, 1883.

WYMAN, WALTER, *Surgeon*.—Detailed as member of Board to examine candidates for promotion, October 30, 1883. To proceed to Norfolk, Va., to investigate the conduct of the service at that port, December 31, 1883.

LONG, W. H., *Surgeon*.—Leave of absence extended ten days, October 26, 1883.

MURRAY, R. D., *Surgeon*.—To proceed to Ship Island quarantine station, October 17, 1883. To inspect sites for quarantine stations, November 30, 1883. Granted leave of absence for twenty days, December 18, 1883.

SMITH, HENRY, *Surgeon*.—Granted leave of absence for twenty-five days on account of sickness, October 13, 1883. Relieved from duty at Norfolk, Va., October 17, 1883. To report to Surgeon Sawtelle, at New York, for temporary duty, November 27, 1883. Relieved from temporary duty at New York, and placed on waiting orders, December 31, 1883.

FISHER, J. C., *Passed Assistant Surgeon*.—When relieved by Assistant Surgeon Banks, to proceed to New York for duty, October 29, 1883. Granted leave of absence for thirty days, November 28, 1883.

GOLDSBOROUGH, C. B., *Passed Assistant Surgeon*.—Granted leave of absence for thirty-two days, on account of sickness, October 12, October 20, and November 1, 1883.

IRWIN, FAIRFAX, *Passed Assistant Surgeon*.—To proceed to Norfolk, Va., and assume charge of the service, relieving Assistant Surgeon Glennan, October 16, 1883.

MEAD, F. W., *Passed Assistant Surgeon*.—To proceed to Portland, Oregon, to inspect the service, and report the condition of Assistant Surgeon Devan, December 5, 1883. To return to station, Port Townsend, Washington Territory, December 18, 1883.

COOKE, H. P., *Passed Assistant Surgeon*.—To proceed to Charleston, S. C., for duty, November 27, 1883.

BANKS, C. E., *Assistant Surgeon*.—Detailed for temporary duty at Georgetown, D. C., October 11, 1883. Granted leave of absence for thirty days, October 12, 1883.

BENNETT, P. H., *Assistant Surgeon*.—Placed on waiting orders, December 15, 1883. Granted leave of absence for thirty days, December 22, 1883. Upon expiration of leave of absence, to proceed to Detroit, Mich., for duty, December 29, 1883.

PECKHAM, C. T., *Assistant Surgeon*.—To proceed to Wilmington, N. C., and assume charge of the service, relieving Passed Assistant Surgeon Irwin, October 16, 1883.

DEVAN, S. C., *Assistant Surgeon*.—Granted leave of absence for ninety-five days, on account of injury and sickness resulting therefrom, November 15, December 5 and 22, 1883.

BEVAN, A. D., *Assistant Surgeon*.—To proceed to Portland, Oregon, and assume charge of the service, December 29, 1883.

GLENNAN, A. H., *Assistant Surgeon*.—To proceed to New Orleans, La., for duty, October 17, 1883.

WASDIN, EUGENE, *Assistant Surgeon*.—To proceed to Mobile, Ala., for temporary duty, October 11, 1883. To proceed to Galveston, Texas, for temporary duty, November 17, 1883.

PROMOTIONS.

BENSON, J. A., *Passed Assistant Surgeon*.—Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from October 1, 1883, October 4, 1883.

BANKS, C. E., *Passed Assistant Surgeon*.—Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from November 1, 1883, to November 6, 1883.